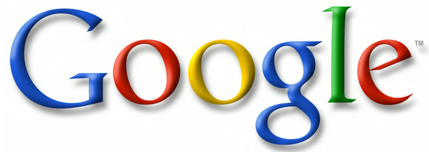

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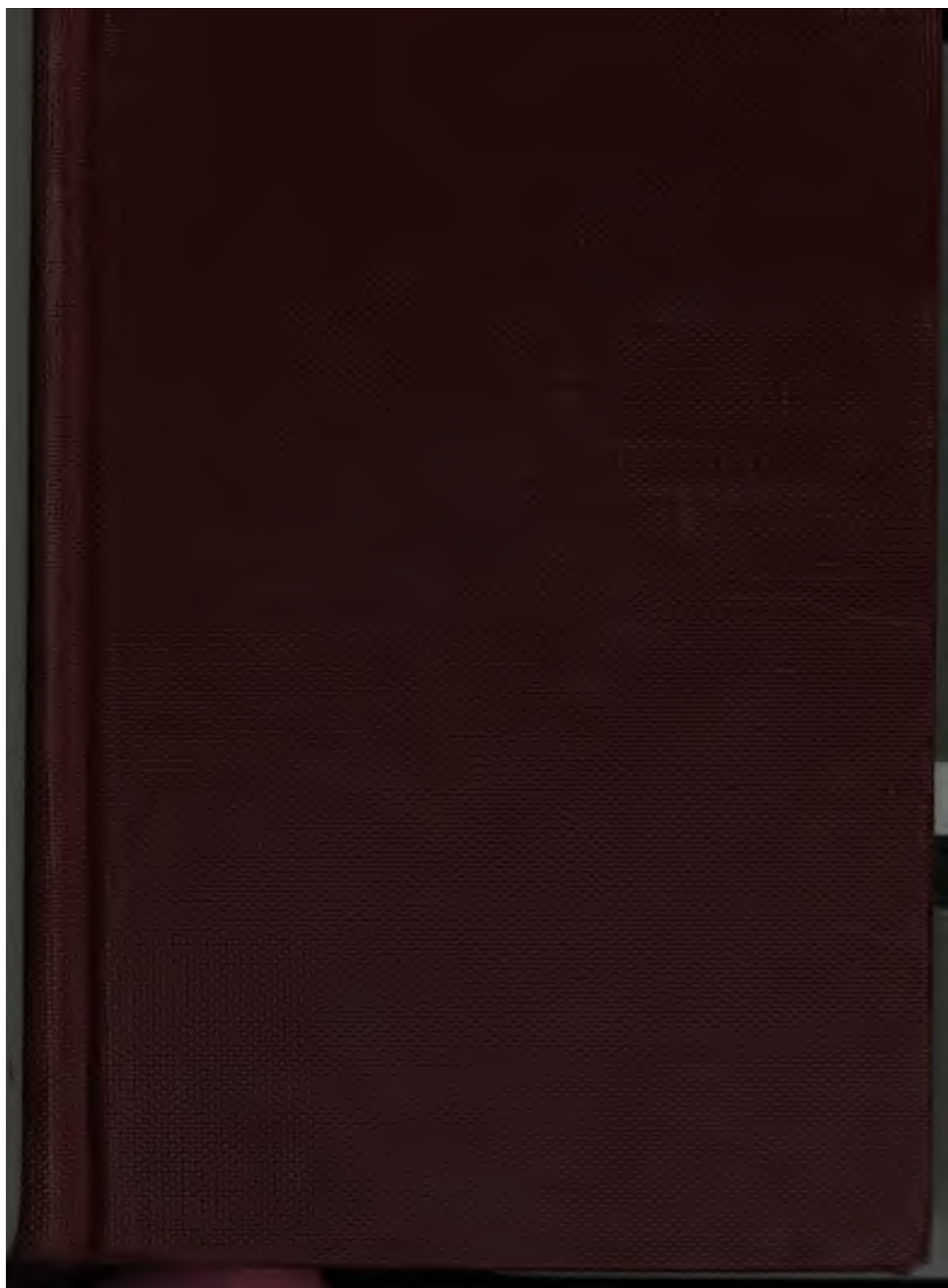

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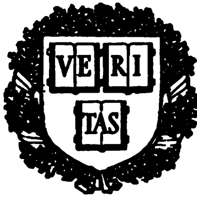

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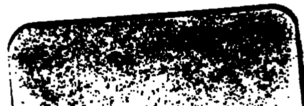

THE GERMAN UNIVERSITIES

THEIR CHARACTER AND HISTORICAL DEVELOPMENT

THE GERMAN UNIVERSITIES

THEIR CHARACTER AND HISTORICAL DEVELOPMENT

BY

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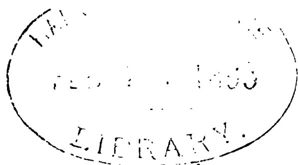

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TRANSLATOR'S PREFACE

PROFESSOR PAULSEN'S admirable outline of the history and character of the German Universities, forms, in the original, the introductory part of the work published under the direction of the Imperial German Government as an accompaniment to its educational exhibit at the Columbian Exhibition at Chicago in 1893. The full title of that work is as follows: *Die deutschen Universitäten: Für die Universitätsausstellung in Chicago 1893 unter Mitwirkung zahlreicher Universitätslehrer herausgegeben von W. Lexis.* 2 vols., Berlin, 1893. The excellence of the account is believed to be a sufficient justification for its presentation in an English dress. Professor Paulsen has quite recently treated some of the questions here discussed, but in more detail, in an article entitled: *Die deutsche Universität als Unterrichtsanstalt und als Werkstätte der wissenschaftlichen Forschung* in the *Deutsche Rundschau,* September, 1894.

A few foot-notes have been added by the translator in the interest of readers whose acquaintance with German customs may be but slight.

My hearty thanks are due to Professor Paulsen for his ready consent to the appearance of his work in English; to Professor Nicholas Murray Butler for constant coöperation and advice, no less than for the Introduction which he has so kindly contributed; to Professor Brander Matthews, whose great taste and valuable criticism were most generously put at my disposal; and to Messrs. Macmillan and Co. for their careful publication and the attractive dress in which the little book appears.

E. D. P.

NEW YORK, January, 1895.

INTRODUCTION

THE RELATION OF THE GERMAN UNIVERSITIES TO THE PROBLEMS OF HIGHER EDUCATION IN THE UNITED STATES

Nowhere, outside of the German-speaking countries themselves, have the German universities been so highly appreciated and so widely imitated as in the United States. Just as the historic American college traces its origin in direct line to Oxford and Cambridge and their influence, so the new American university represents, to a remarkable degree, the influence and authority of the academic traditions of Heidelberg and Göttingen, of Leipsic and Berlin.

The distinction between the function of the college and that of the university, which becomes clearer day by day to the student of education, has thus far proved too subtle to reach the understanding and too commonplace to

satisfy the pride of the American people; for the existing terminology inextricably confuses colleges and universities, and sometimes even institutions that are little more than secondary schools, and it taxes the patience and skill of the expert to disentangle them. If we cut the Gordian knot by allowing every institution founded for any form or phase of higher education to classify itself by the name that it assumes, then there are no fewer than 134 universities in the United States.[1] Of these, 7 are in Illinois (although the new University of Chicago is not included in the enumeration of 1890–91), 8 are in Kansas, 14 are in Ohio, 9 are in Tennessee (of which total the city of Nashville alone, with about 80,000 inhabitants, contributes 3), 8 are in Texas, and 4 are in the city of New Orleans. When this surprising number is compared with the total of 20 universities for the whole German Empire, it is evident, without further investigation, that there is some difference in standard between the two coun-

[1] *Report of the Commissioner of Education*, 1890–91, pp. 1398–1413

tries, and that to be a university in fact is something more than to be a university in name.

According to another extreme view, there are no American universities whatever. Only two years ago so distinguished an authority as Professor von Holst, formerly of Freiburg but now attached to the University of Chicago, said:[1] —

"There is in the United States as yet not a single university in the sense attached to the word by Europeans. All the American institutions bearing this name are either compounds of college and university — the university, as an aftergrowth, figuring still to some extent as a kind of annex or excrescence of the college — or hybrids of college and university, or, finally, a torso of a university. An institution wholly detached from the school work done by colleges, and containing all the four faculties organically connected to a *Universitas literarum*, does not exist."

Inasmuch as there is no common agreement among Europeans as to what the term "university" means — as may readily be seen by

[1] *Educational Review*, V: 113

contrasting the University of Oxford with the University of France, and either or both with the University of Berlin — Professor von Holst obviously meant by European, German; and his definition of a university bears out this interpretation. With this limitation his judgment may be accepted as technically correct; but it rests upon two false assumptions: (1) that exact reproductions of the German universities should be developed in the United States, and that until this development takes place there will be no American universities; and (2) that the American college is to be classed with the German gymnasium as a secondary school. Into these two blunders those observers of American educational organization who occupy the exclusively German point of view habitually fall; and in more than one instance the truest and most natural development of higher education in America has been impeded and retarded by the attempt, on the part of those who share Professor von Holst's errors, to force that development into the exact channels worn by German precedent.

The American university may, or rather must, learn the lessons that its German predecessor has to teach, but it should be expected to develop also characteristics peculiar to itself. In order to become great — indeed, in order to exist at all — a university must represent the national life and minister to it. When the universities of any country cease to be in close touch with the social life and institutions of the people, and fail to yield to the efforts of those who would readjust them, their days of influence are numbered. The same is true of any system of educational organization. For this reason alone, if for no other, an educational organization closely following the German type would not thrive in America; indeed, with all its undisputed excellences, it would not meet our needs so well as the yet unsystematic, but remarkably effective, organization that circumstances have brought into existence. Therefore Professor von Holst is not likely at any time to see a single university in the United States, if he persists in giving to that word its technical German significance. But using the word in a broader,

and, I believe, a truer sense — the sense that, while not confounding it with a college however large or however ancient, nor applying it mistakenly to a college and a surrounding group of technical and professional faculties or schools, yet extends the term to include any institution where students, *adequately trained by previous study of the liberal arts and sciences*, are led into special fields of learning and research by teachers of high excellence and originality; and where, by the agency of libraries, museums, laboratories, and publications, knowledge is conserved, advanced, and disseminated — in this sense one may perhaps count six or eight American universities in existence today, and half as many more in the process of making.

To confuse the American college with the German gymnasium is inexcusable. Neither a large college like Princeton, nor a small one like Williams or Bowdoin, can be imagined as part of the gymnasial system. The American college is, in the phrase of Tacitus, *tantum sui similis*; neither the English public school, the French lycée, nor the German

gymnasium, is its counterpart. Its free student-life and broad range of studies liken it in some degree to a university; but the immaturity of its students, the necessarily didactic character of most of the work of its instructors, and the end that it has in view, mark it off as belonging to a different type. The college has proved to be well suited to the demands of American life and to be a powerful force in American civilization and culture. Its usefulness is in no wise impaired nor its dignity lessened now that the university, with a wholly different aim and a totally different set of problems to solve, has grown up by its side. As President Hyde, of Bowdoin College, has truly and forcibly said:[1] "For combining sound scholarship with solid character; for making men both intellectually and spiritually free; for uniting the pursuit of truth with reverence for duty, the small college [and the large as well], open to the worthy graduates of every good high school, presenting a course sufficiently rigid to give symmetrical development and sufficiently elastic to encourage individual-

[1] *Educational Review*, 11: 320, 321

ity along congenial lines, taught by professors who are men first and scholars afterwards, governed by kindly personal influence and secluded from too frequent contact with social distractions, has a mission which no change of educational conditions can take away, and a policy which no sentiment of vanity or jealousy should be permitted to turn aside."

In 1891 there was one student enrolled in a college of the liberal arts and sciences for every 1363 inhabitants of the United States.[1] Counting five persons to a family,[2] this means that one family in every 272.6, the country over, contributed to the college population. Of course, in some sections of the country the ratio was much less. In Massachusetts, for example, there was one college student for every 858 of population, or one for every 171.6 families. In Iowa the proportion was one to 908 persons, or 181.6 families; in Utah, one to 789 persons, or 157.8 families. These sta-

[1] *Report of the Commissioner of Education*, 1890–91, p. 827

[2] The actual ratio in the United States in 1890 was 4.93 (see *Abstract of the Eleventh Census*, 1890, p. 54)

tistics, read in relation to the vast extent of the territory of the United States and to the heterogeneousness of its population of 70,000,000, are ample proof, if proof were needed, that the college is a very familiar feature in American life, and that it supplies the educational needs of the people to a remarkable degree.

Of the 430 American colleges, perhaps no two have precisely the same course of study or the same equipment; but the common features that distinguish them are well known. The ancient classics, mathematics, the English language and literature, the modern European languages, the natural sciences, economics and philosophy, are doubtless represented to some extent in every college curriculum; yet every phase of educational opinion and every variety of local interest are represented in the details of their arrangement. But we may be sure that wherever it is found, whether on the Atlantic seaboard, in some inland town of the West or South, or on the Pacific slope, the college is a force making for a broader intellectual life and a higher type of citizenship. It leaves to the university the task of educat-

ing specialists, investigators, and scientifically trained members of the learned professions.

The diversity of the college when contrasted with the uniformity of the gymnasium makes it plain that the American university does not rest upon any uniform and closely controlled foundation. American students come to the university with very varied preparation in knowledge and training. But if the healthy forces recently set at work in the field of American higher education bring about their legitimate results, the efficiency of the university and its power for good will be distinctly increased rather than diminished by the fact that its students are not all cast in a common mould. The principles of the limited election of studies and of the adaptation of the curriculum to the pupil, rather than the pupil to the curriculum, are as sound when applied in the secondary school as in the college, and the scope of their application widens year by year. The American college graduate who desires a university career is thus enabled to enter upon it a broadly and liberally educated man, with tastes formed and aptitudes devel-

oped, ready to undertake with immediate advantage the specialized work for the sake of which the university exists. He is much more broadly, though perhaps less minutely, trained than the German *Abiturient.*

In one very important respect the American system of higher education is distinctly superior to the German. In Germany a clear-cut dividing line between the gymnasium and the university is drawn by the complete and carefully preserved difference in method, in spirit, and in ideal that exists between them. The contrast between the narrowness of the gymnasium and the broad freedom of the university is very sharp, and many a university student loses his balance entirely, or wastes much precious time and force, in adjusting himself to his totally new surroundings. In America, on the contrary, the college and the university sometimes exist side by side in the same corporation, as at Harvard, Johns Hopkins, Columbia, and Chicago, and the work of the one passes gradually and insensibly into that of the other. Even when, as is generally the case, the college exists as a thing apart,

the later years of its course of study are so organized and conducted as to make the transition from college to university easy and natural. This practice is sound in psychology, sound in economics, and sound in common sense. Its practical success is amply demonstrated by the fact that there is no American university — unless that name be given to the few partially developed departments of study represented at Worcester, Mass., — that is not in the closest relation to a college which is a member of the same corporation. The institutions that to Professor von Holst are "compounds of college and university" are, therefore, not, as he evidently thinks, compounds of gymnasium and university, but the peculiar product of the American educational organization and its peculiar strength.

But though the foundation on which university work in America rests, differs and will continue to differ from that provided in Germany by a uniform system of state-controlled gymnasiums, the university itself is essentially the same; indeed, its organization has been effected largely by men who had studied in

the German universities, and who desired to develop in the United States a similar vehicle for the highest form of the scientific activity of the nation. The three fundamental principles that the German universities have established and brilliantly illustrated, *Lehrfreiheit*, *Lernfreiheit*,[1] and the pursuit of science for its own sake, are fully recognized in the American universities; although it cannot be said that the third principle is as fully lived up to as it ought to be. Professor Paulsen has himself pointed out in his latest publication on the subject[2] that the peculiar character of the German university lies in the fact that it closely connects research and teaching. At present complaint is made that the one aim, research, is too largely pursued at the expense of the other, with the undoubted result, as a German university professor admits,[3] that, considered merely as teaching institutions, the American universities surpass the German in

[1] See pages 161 and 201 of this volume

[2] *Deutsche Rundschau*, September, 1894

[3] Professor Hugo Münsterberg, quoted in *Educational Review*, VII: 204

efficiency. The emphasis often laid on teaching, at the expense of research, in the American universities is largely due to the fact that the older generation of American university professors are men who were for many years engaged in the work of purely collegiate teaching, and they have neither outgrown nor cast off the habits and methods of years, nor combined research with teaching in any marked degree. This, of course, is quite as much to be deprecated as an exaggeration of the opposite tendency. The younger generation of university teachers, however, a large proportion of whom have been trained in Germany, combine research with teaching in almost every instance; though, happily, research is not yet reduced to work with "the lens, electrode, test-tube, and psychometer," which apparently seem to Dr. G. Stanley Hall to cover the field of possible investigation.[1] It is possible, of course, in the enthusiastic devotion to research to overlook entirely or to minimize the need of good teaching in universities, and also to

[1] See "Research the vital spirit of teaching," *The Forum*, August, 1894

exaggerate the influence of research in producing good teachers; but from present indications, this is not a source of immediate danger in the United States. Our wisest university teachers are in agreement with Virchow, who said recently[1] that the aim of university study is "general scientific and moral culture together with the mastery of one special department of study."

The main obstacle to the full establishment in America of the pursuit of science for its own sake, as a controlling university principle, is the development and rapid growth of technical schools in connection with universities, and their admission to a full and even controlling share in university legislation and administration. Indeed, in this lies the chief danger to the integrity of American university development. Thus far the Johns Hopkins University has escaped these influences entirely, and Harvard University has been able to hold them in check. But at some other institutions they are strong and menacing. The danger consists in allowing

[1] *Lernen und Forschen* (Berlin, 1892), p. 8

the claim that closely specialized work in a purely technical or professional branch, entered upon without any broad preparatory training whatever, is to be regarded as legitimate university work and entitled to the time-honoured university recognition and rewards. It need hardly be pointed out to the intelligent reader that the tendency to do this is under full headway in the United States, and that its essential narrowness and philistinism increase with its success in establishing itself. The general public attribute unmerited scientific importance to technical schools established in connection with colleges and universities because of their large enrolment; and governing boards look upon them with favour both because of the influence they exert through their graduates and because they are often important sources of revenue. Both facts tend to divert attention and funds from the pursuit of science as an end in itself, and to keep that principle from controlling university policy as it should. The difficulty would be diminished, and perhaps removed, if these technical schools (law, medicine, technology, and the like) were put upon a

true university basis by insisting upon a liberal education as a prerequisite for admission to them. This would bring about a condition analogous to that which prevails in Germany, and would raise the American universities to a plane that they have never yet occupied. For, with the exception of the medical school at the Johns Hopkins University and the law school at Harvard, there are no professional schools in America of university rank. The others, without exception, admit to their courses and degrees immature students who have had only a partial secondary school training, or often no training at all. When such a state of affairs exists within a university organization, it is apparent that the technical or professional schools are an injury rather than a legitimate source of pride and strength, no matter how many hundreds of students they may attract. Indeed the larger they become the greater is their influence for evil, for their teaching is necessarily brought down to the level of the least-trained intelligences among the heterogeneous body of students, and in this way the standard of the whole university is lowered.

So far as this tendency exists in the case of schools of applied science, it must be confessed that its existence is largely due to the attitude of the partisans of the old-fashioned uniform college course. By refusing to mathematical and scientific studies an equal place by the side of Greek and Latin, they forced the schools of science to establish themselves — in many cases on the narrowest possible educational basis — outside of the college and in competition with it; when, with a broad and generous treatment of the problems involved, the scientific or technical course might have been grafted on the college in a way that would have been of inestimable value both to the technical school and to the college, and greatly to the advantage of the cause of liberal education. The time when this could have been accomplished easily is past; but it can yet be brought about if undertaken in the right spirit and with wisdom.

It is seemingly impossible for universities generally to raise their schools of law and medicine to university rank in the face of public indifference as to the general educational qualifications of lawyers and physicians. How

long this indifference will continue unmoved, there are no means of determining. Here and there efforts are making to insist upon some portion, at least, of a secondary education as a qualification for admission to schools of law and medicine. But as a rule admission to the practice of those professions is open to any one, however ignorant, who will serve a short term of apprenticeship. This arrangement is sometimes defended on the ground that many men have in the past distinguished themselves as lawyers or physicians, though without any liberal education whatever. This is true, but they were rare exceptions; and they become rarer each year as competition grows closer and more pressing. So far as law, at least, is concerned, one reason for the prevailing laxity may be found in the fact that this profession offers the easiest mode of entrance into politics; and to engage in that field of activity is often a chief aim in the minds of many young men who have no desire for a liberal education. But whatever public opinion may rest satisfied with, it seems indisputable that universities owe it to themselves to put their stamp upon

no graduates in law, medicine and technology who are not liberally educated men.

When the technical and professional schools shall have been raised to true university rank, one series of problems will be solved; but others will remain. It is as necessary in America as Paulsen describes it to be in Germany, to conserve the unity of the university about the historic faculty of philosophy as a centre. This faculty is at once the essence of a university and its true glory. Standing alone it may justify the title university, as the history of the Johns Hopkins University for twenty years amply demonstrates. But to make it subordinate or to keep it weak and unimportant, whether by subdivision or other means, is to sap the university's life-blood. The faculty of philosophy represents, when undivided, the unity of knowledge and the true catholicity of scholarly investigation. Through it each department of study is kept in sympathy with its fellows, and each strengthens and supports the rest. When dissevered, its parts tend to become mere *Fachschulen*; and the highest ideals of university life are sacri-

ficed. No stronger evidence in support of this opinion can be cited than the emphatic statements on the subject made by Du Bois-Reymond, the physiologist, and Hofmann, the chemist, in their inaugural addresses on assuming the rectorship of the University of Berlin in 1869 and 1880, respectively. These are the words of Du Bois-Reymond: "The philosophical faculty forms the connecting link between the remaining faculties. . . . The reciprocal action of the different branches of human knowledge which takes place within the philosophical faculty, would naturally be lost with its division, but this mutual influence contributes very much to widen the vision of the individual, and to preserve in him a right judgment of his position in relation to the whole. The two divisions of the faculty would finally approach the character of special schools; the ideal stamp of the whole would be destroyed."[1] And eleven years later Hofmann defended the same position with equal vigour.

The faculty of philosophy must not only be preserved in its integrity, but its spirit must

[1] *Ueber Universitäts-Einrichtungen* (Berlin, 1869), p. 15

dominate the whole university. As has recently been officially pointed out,[1] "The safety of the university spirit demands that the university proper [the faculty of philosophy] be counted as one part, and the collected schools [technical and professional] together as another, rather than that each professional and technical faculty shall claim a coördinate right with the foundation faculty, which would thus be made not a half but a seventh (or possibly one-twentieth, as the schools multiplied) of the university which but for it could have no real existence." This is still another lesson that the administrators of American universities have yet to learn.

One other danger, common to all universities, whether German or American, lies in the excessive specialization which is so often warmly recommended to university students. Its inevitable result is loss of ability to see things in their proper proportions, as well as loss of sympathy with learning as a whole. Perhaps the division of labour cannot be carried too far for the

[1] See *Report of the Secretary of the University of the State of New York for* 1893, p. 176

value of the product, but certainly it can be carried too far for the good of the labourer.

> "Denn nur der grosse Gegenstand vermag
> Den tiefen Grund der Menschheit aufzuregen,
> Im engen Kreis verengert sich der Sinn."

Signs are not wanting that this narrowing of view and of sympathy is already taking place; but the university has in its faculty of philosophy the means to correct it if it will. What science and practical life alike need is not narrow men, but broad men sharpened to a point. To train such is the highest function of the American university; and by its success in producing them must its efficiency be finally judged.

NICHOLAS MURRAY BUTLER

COLUMBIA COLLEGE, NEW YORK
January, 1895

THE GERMAN UNIVERSITIES

CHAPTER I

GENERAL CHARACTER OF THE GERMAN UNIVERSITY

THE manifold forms of existing universities may be reduced to three fundamental types: the English type, the French, and the German.

The English type, represented by the two ancient and venerable universities of Oxford and Cambridge, is the oldest; in it the original form of the mediæval university is most completely preserved, just as in England, in general the most conservative country of Europe, ancient traditions are most faithfully cherished. The university is there a free corporation on an ecclesiastical basis; it governs itself, and maintains itself upon a property derived from "foundations," the state having nothing to do with its ordinary administration. The rules of daily

life are in the main those of the mediæval university, and teachers and scholars dwell together in the colleges and halls in a sort of conventual community. The instruction, too, resembles in matter and in form the instruction given in the ancient university, in particular in its chief faculty, the *facultas artium*. The purpose of this instruction is essentially a broadened and deepened general culture, such as beseems a gentleman; strictly scientific research, as well as technical preparation for the learned professions, lies outside of its regular aims. The subjects of instruction are, above all, the sciences which make for general culture: languages, history, mathematics, natural science, philosophy. The mode of teaching is that of the school, and in many cases is purely private.

The French type of university has diverged most widely from the ancient form. The Revolution wiped out the universities, as it did so many other historical institutions, to gain space for a great and new structure after a geometrical pattern. It was not until the Empire that the new structure was carried out. The place of the ancient universities

was assumed by independent training schools for the separate professions which require a scientific preparation; *facultés de droit, de médecine, des sciences, des lettres.* The ancient inclusion of the faculties in the unity of the university was abandoned, and even the name university would have disappeared, had it not been retained with a change of signification in the term *Université de France*, to denote the unified administrative body covering the whole country, and regulating the entire educational system from the elementary to the strictly professional school. At the present time the French faculties are state institutions, designed to give technical preparation for certain professions, and the instructors are state officials, in which capacity they hold the state examinations. Scientific investigation and general scientific culture do not properly fall within their scope; the former is the concern of the academy, the latter of the preparatory schools.

The German type, indigenous to Germany and to the neighbouring countries which have developed on a similar basis of culture (Austria, Switzerland, the Netherlands, Scandinavia, and,

to a certain extent, Russia) occupies, so far as external organization is concerned, the middle ground between the English and the French types. It has kept on the one hand more of the original form than the French, while on the other it has yielded more to the demands of modern times than the English. The German university, like the French faculty, is a state institution; it was founded, and is maintained, by the state, and is subject to state control. Yet it has preserved for itself not unimportant relics of its ancient corporative organization, still possessing to a certain degree the right of self-government. It chooses its own officials: rector, senate, and deans; it exercises an important influence on the filling of its chairs of instruction, first by determining, through its examinations for the doctor's degree and the admission of *Privatdocenten*, the circles from which its instructors are mainly drawn, and secondly by making nominations to the government for the appointment of individual instructors. In its general organization as an institution of learning, the German university has actually preserved the original form

most faithfully, the four faculties being here retained as active instruments of instruction, whereas in England the teaching and the life of the students have for the most part withdrawn into the colleges. On the other hand, in contrast to the French system, the consolidation of the faculties into the living unity of the university, of the one school for all learned professions, has here undergone no change.

If we fix our attention upon the inner nature of the German university, its particular character is plainly seen to be this: it is at once the workshop of scientific research, and an institution for the highest scientific instruction; and for general as well as for technical scientific instruction. Like the English universities, it offers a wider and deeper scientific training of a general nature — this being in particular the task of the philosophical faculty. Like the French faculties, it offers the technical training for the learned callings of the ministry, the bench and bar, the higher civil service, and the office of teaching in the gymnasiums. But beyond this the German universities are something which neither French nor English uni-

versities are: the chief seats of scientific work in the country, and with that the nurseries of scientific research. According to the German conception the university professor is at once teacher and scientific investigator, and the latter feature is the more prominent, so that we must in fact say: In Germany the scientific investigators are at the same time the teachers of the academic youth. As a necessary consequence, the academic instruction is above all strictly scientific, not the training for the practice of a profession, but the introduction to scientific insight and research, holding the most prominent place.

In this unity of research and teaching, then, we find the peculiar character of the German university. In Oxford and Cambridge there are admirable scholars, yet no one would call the English universities the representatives of the scientific work of the nation. Not a few of the most noted savants of England, men like Darwin, Herbert Spencer, Grote, both the Mills, Macaulay, Gibbon, Bentham, Ricardo, stand quite outside the universities, and we are entirely justified in saying of many a one

among them, that he would be quite impossible in an English university. But even the learned men at the universities are not really the teachers of the collegiate youth; they deliver, perhaps, a few dozen lectures in the course of a year, while the real instruction is mainly in the hands of the fellows and tutors. And so, too, in France: the real investigators, the great scholars, belong to the French Academy, to the Institute; they may be also members of the College of France or of the Sorbonne, and as such deliver some public lectures, free admission to which is everybody's privilege; but they are not, like the German professors, the actual daily teachers of the academic youth. And on the other hand it is by no means expected of the teachers in the faculties (particularly in the provinces) that they should be independent investigators.

In Germany, on the contrary, the presumption is justified that all university teachers are scientific investigators, or scholars strictly speaking, and conversely, that all who are, strictly speaking, scholars, are university pro-

fessors. There are, of course, exceptions; there are very eminent savants who are not university professors (suffice it here to call to mind Wilhelm and Alexander von Humboldt), and besides there have always been many names of excellent reputation among the gymnasial teachers. Again, among the university professors there are not only individuals who produce nothing of importance as investigators, but also some who aim to be teachers above all else. But this is not the rule; the rule is the identity of scholar and professor. When in Germany we speak of a great scholar, the question soon follows: At what university is he? And if he is not at any university, we may safely assume that he regards it as a slight. So, on the other hand, if there is mention of a professor, the question is soon asked: What has he written? What has he achieved in science?

The consequences of this relation for the shaping of our mental and scientific life are most important.

The German savant is an academic teacher; on this fact depends his position in the life

of our nation. Our thinkers and investigators are known to us not only on paper, as authors, but known face to face as personal teachers. It was above all as academic teachers that such men as Fichte, Schelling, Hegel, Schleiermacher, influenced their times; as authors their influence was not especially great, and a large part of their writings was published only after their death, from drafts of lectures, or from notes taken down by their pupils. So also Kant and Christian Wolff were university professors. And the same is true of the great philologians, of Heyne, F. A. Wolff, G. Hermann; their influence was exerted chiefly by their personal activity as teachers, while their disciples, as teachers in the *Gelehrtenschulen*,[1] infused the spirit and the tone of these men into the youth of the nation. Let one but consider, too, the impulse given by historians such as Ranke and Waitz through their seminars. It is also well worthy of notice that among the eminent poets of our people more than one were university teachers, so Rückert and Uhland, and Bürger and Schiller; and how sig-

[1] *i.e.* gymnasiums. — Tr.

nificant is the simple fact that Luther and Melanchthon were university professors!

Without doubt this relation is most fruitful for both sides. The German youth, coming into immediate contact at the university with the spiritual leaders of the nation, receives here his strongest and most lasting impulses. In German biographies the years spent at the university play a commanding part, and not rarely the instruction of some academic teacher appears to have decided the individual's mental tendency. On the other hand, the same relation is not less happy and fruitful for our learned men and investigators; in association with youth they remain young. The personal communication of thought finds in the silent yet intelligent reaction of the hearers an encouraging element which is wanting to the solitary author. The presence of hearers keeps the teacher's eye constantly fixed upon what is of importance and of universal value. The inclination to philosophize, the tendency toward leading ideas, which are asserted of German thought, certainly go hand in hand with the fact that in Germany, more than elsewhere,

knowledge is brought forth for living communication by oral instruction.

Naturally there is another side to the picture. From the shaping of the pursuits of science after university patterns there result, of necessity, certain phases of our scientific life which are only too easy to recognize, and less satisfactory to contemplate; for instance, a tendency to over-production of books, to the formation of schools and sects, to the disparagement of outsiders, which is taken in bitterness of spirit by these and cast as a violent reproach against the "guild" of scholars, as readers of Schopenhauer know full well. It is quite true that it is harder for a scholar who is outside of university circles to force his way to the front than in England or France; and true as well that it might prove a valuable corrective to our academic learning if unincorporated scientific activity flourished to a higher degree by its side — for this might well bring with it less biassed views and a more reliable standard of judgment in many matters.

And yet on the whole the German people can find no reason to be dissatisfied with

the existing state of affairs, as historically conditioned. If learning and science lie nearer the heart of the people in Germany than in other lands, we must doubtless attribute this partly to the fortunate circumstance that in our country the great men of science have always been as well the teachers of our academic youth. In any case, the universities cannot but desire the continuance of these relations. The secret of their strength lies in their ability to attract to themselves and hold fast the leading spirits; while this power remains to them they will be able to maintain the position which they have won in the life of our nation.

It is true that in the course of time a certain change will of necessity come about. The position taken by the universities at the beginning of this century resulted naturally from the circumstance that the German people had at that time no other centre of national life than science and literature. And the fact that it was so long excluded from participation in the great world of politics, and its success in the world of commerce, its competition in

the world's markets, so long beset with difficulties, could not but tend to direct its powers toward the inner life, and bid it seek in the realm of thought a recompense for its defeat in the external world. And so it came about that in the European family of nations the part of "the nation of poets and thinkers" fell, or was abandoned, to the German people. Germany and France seemed to have exchanged the characters attributed to them in a mediæval proverb: "The Italians have the papacy, the Germans the empire, the French learning."

All that has been changed within the last generation. The German people, so long merely a passive object in European politics, has again come into existence as an active subject. The unity of Germany rests nowadays on other foundations than on her universities. The change will make itself felt in more than one direction. In the days of the old Federal Diet the universities formed the real focus of the national life — a fact attested by the attention devoted to them by that august body; in the New Empire this is no longer possible. Besides the academic career, other ways to a

commanding position are now thrown open to men of talent; in the Reichstag, in the army, in official life, in the world of commerce, in the colonies — everywhere a chance of employment, and a prospect of influence and gain, are opened to every ability which knows how to make itself felt, without reference to birth.

And yet even under these altered circumstances the universities have maintained a conspicuous place among our national institutions. Even to-day they still form not unimportant supports in the structure of German unity. The interchange of teachers and students among the universities, as it goes on day by day between the various races and districts in North and South, in East and West, still helps not a little to perpetuate the sentiment of national unity among the members of the Empire, separated as they are by state-boundaries. And forever, let us hope, will the German university preserve the reputation of being the chief supporter of German learning. This reputation is assured to her while she, as heiress to the past, preserves that spirit of inwardness: the calm delight

in her employment, the faithfulness of work, and the love of truth which transcends all other aims and considerations.

In the meantime, the German university may well rejoice in the recognition given her by foreign countries as shown in the determination to imitate her forms. France has recently begun to gather again her faculties into unified universities; and in England the attempt is being made to restore university instruction out of its scattered existence in the colleges. Thus far the greatest measure of success has perhaps been reached by some of the most prominent American universities in their effort to carry out the German principle of the union of scientific investigation and scientific teaching.

CHAPTER II

OUTLINES OF THE HISTORICAL DEVELOPMENT OF THE GERMAN UNIVERSITIES

I

The Middle Ages

THE origin of universities is to be sought in France and Italy; it coincides in time with the beginning of the second half of the Middle Ages. While in the earlier half men's eyes were fixed mostly on the past, on Christianity and the ancient world, by the end of the eleventh century they began rather to look into the future. The intellectual life was now stirred with mighty impulses. The Crusades brought western nations into close connection with each other and with the eastern world; and Mohammedan religion and civilization rose on the horizon. In knighthood there appeared a bearer of profane literature and culture, while in the new orders of Franciscans and Domini-

cans arose a kind of ecclesiastical and spiritual knighthood, the great names of the new theology and philosophy, then rapidly developing, belonging in great part to one or the other of these orders. Everywhere the struggle for knowledge broke out; the task was undertaken of mastering inwardly and permeating with reason the doctrines which the nations of more recent growth had accepted as settled facts. Simultaneously the chief works of the Aristotelian philosophy were made known. And so the problem arose, how to reconcile belief with knowledge, the church's teachings with philosophy, and to weld them firmly into one. Its solution was found in the formation of the great "systems" in the thirteenth century.

This new spiritual world produced the university, to be its instrument and its support. Paris, the first great university of the West, was the seat of the new theological and philosophical speculation. It was from her — *ex diluvio scientiarum studii Parisiensis* — that the German universities in particular were derived; yet the universities of Italy, of an

independent growth, were not without influence upon them, particularly the university of Bologna, which had originated as a school of law.

While the oldest universities of France, Italy, Spain, and England can be traced back to the thirteenth, and their beginnings to the twelfth, century, the oldest German universities date only from the second half of the fourteenth. The earliest foundations were at Prague and Vienna, the former established in 1348 by the House of Luxemburg, the latter in 1365 by the House of Hapsburg; and both on the eastern borderland of German civilization, evidently because Paris was near enough for Western Germany, and because between the old church schools on the Rhine, especially that at Cologne, and Paris a close connection was kept up. Toward the end of the same century, in 1385, the West followed suit with the university of Heidelberg, in 1388 with that of Cologne; and in Central Germany the university of Erfurt was founded in 1392—the two latter being municipal establishments. The dispersion of the university

of Paris through the great schism contributed to the foundation of these three in Germany. Besides, Cologne had long been one of the most important seats of ecclesiastical learning; and Albertus Magnus and Thomas Aquinas had taught in the school of the Dominicans there, and Duns Scotus in that of the Minorites. To supply the place of Prague, which had been lost to Germany in the Hussite disturbances, the university of Leipsic was founded in 1409; and that of Rostock was opened in 1419, to meet the needs of the countries on the Baltic.

The seven universities of this first period are, with the exception of two, still in existence; while Cologne and Erfurt, though in the first rank in the fifteenth and sixteenth centuries, went down, along with the spiritual territories to which they belonged, before the furious onslaughts of the French Revolution, which proved destructive to so many ancient universities. Cologne was closed in 1794, Erfurt in 1816.

A second period opens with the beginning of the humanistic movement. It called into ex-

istence nine new German universities: Greifswald in 1456, Freiburg in 1457, Basle in 1460, Ingolstadt in 1472, Treves in 1473, Mentz and Tübingen in 1477, Wittenberg in 1502, and Frankfort-on-the-Oder in 1506. Four of these (Greifswald, Freiburg, Basle, Tübingen) still exist in their ancient seats. Treves and Mentz, both archiepiscopal universities, and never of any great importance, came to an end, with the spiritual powers to which they belonged, toward the close of the last century. The remaining three suffered a change of place, and lost part of their independence, at the beginning of this century; the university at Ingolstadt was transferred to Landshut in 1802, and to Munich in 1826, while Wittenberg was united with Halle in 1817, and Frankfort with Breslau in 1811.

Before describing the organization and methods of instruction of mediæval German universities I may be permitted to insert a few words in explanation of the names for universities. The proper title of such an institution was *studium generale*. In distinction from *studium particulare*, a school founded for a par-

ticular locality or district, the university was styled *generale* because it aimed to be a teaching institution for all Christendom, irrespective of national and territorial boundaries, and also because the degrees granted by it were recognized throughout all Christian countries. The word *universitas*, on the contrary, denoted originally not the institution, but the political corporation of teachers and students, which held, in virtue of all kinds of exemptions, the position of a legally chartered body. Accordingly, we read of the *universitas magistrorum et scolarium Parisiis existentium*, of the *universitas studii Pragensis*, or *Viennensis*. But gradually the name university displaced the other titles, after which, with the entirely modern rounding-out of the term into *universitas litterarum*, it was used to designate the teaching institution as such.

Method of Foundation

The German universities did not grow up gradually, like the earlier ones in France and Italy, but were established after a scheme already extant and in operation. The spiritual and the

temporal power contributed to their foundation. The Pope, by a bull, founded the institution as a teaching establishment, and endowed it with the privilege of bestowing degrees, whereby it became a *studium generale* or *privilegiatum*, for according to mediæval conceptions teaching had its proper source and origin in the church alone. Gradually, however, the imperial power entered into competition with the papal.

On the other hand, a practical existence was assured to the institution by the local sovereign, who appears in every case as the real founder; he procured a bull from the Vatican, sometimes also a charter from the Emperor, permitting the foundation; he endowed the institution with buildings, and with revenues which in general consisted mostly of ecclesiastical prebends, whether already existing or established for this very purpose; and finally he granted the teachers and the scholars corporate privileges, such as exemption from civil jurisdiction and taxes, and the right of self-government.

Organization

The first German universities show a twofold division, after the model of Paris. The teaching establishment separates itself into four faculties, the political corporation into four "nations,"—the former division concerning the work of instruction and the examinations, the latter the various matters of jurisdiction and administration. At the head of each faculty stands the dean, at the head of the university the rector with the council, at the head of each nation the procurator. The universities of later creation abandoned the separation into nations, this division having been displaced and succeeded by that into faculties. Still, it was a reminiscence of the ancient constitution that the rector might even be chosen from among the *scolares*; and princes and noblemen were occasionally honored with this distinction, which naturally reflected its brilliancy back upon the corporation itself.

Attendance

On this as on other points tradition is generous with large figures; it tells of thousands and tens of thousands studying at Prague or at

Vienna, at Paris or Oxford. And the matriculation-lists which have been preserved in many universities and recently published seem to give considerable justification for such figures. When, for instance, there was found an annual number of matriculations amounting from 500 to 1000, we seemed to come pretty near to such estimates, assuming a period of study extending over four to six years; yet a more careful scrutiny of the possibilities in the case and a critical use of the documentary evidence have brought us back to more modest figures. This is not the place to go into details, but we shall not go wide of the truth if we suppose that the largest German universities can hardly have contained more than 2000 *supposita* (the technical term for the matriculated members of the university), while the smallest shrink to the dimensions of a few hundred students, or even less. The great majority of the students belonged as a rule to the lower faculty, the *facultas artium*, ever since the sixteenth century called the philosophical faculty. Among the three upper faculties, which have in general but small numbers to show, the faculty of law seems in the main to

have drawn the largest attendance, and next the faculty of theology; the faculty of medicine was quite insignificant.

Control of Students

The mediæval university resembled in few respects the German university of to-day; one would most naturally compare it to a great boarding-school. Teachers and students, at least those belonging to the faculty of arts, lived together in the university buildings. Every university had one or more *collegia* (the "colleges" of English universities; the term survives in Germany in the form *Colleg*, meaning a course of lectures), and besides these often a *pædagogium* for younger Latin scholars. When the attendance increased to the extent that the university houses no longer sufficed to contain all the students, individual *magistri* were allowed to maintain private boarding-houses, and these were called *bursæ*. This name, which was also used for the *collegia*, gave rise to the German *Bursch*, a word at first used as a collective noun, *die Bursch*, *i.e.* the inmates of the *bursa* (pronounced *Bursch* in South Ger-

man dialects). In all these establishments the course of life was regulated after the monastic pattern, as a great number of statutes still existing show us plainly and in great detail. We find in such a house rooms for common use (dormitories, refectories, study and lecture-rooms, a *stuba facultatis*, where the sessions of the *magistri* were held), as well as rooms for the individual, whether larger rooms for the *magistri* or mere cells or *cameræ*, which could not be warmed, for the *scolares*. This organization presupposes on the one hand the celibacy of the *magistri*, on the other the extreme youth of the *scolares*, on an average from fifteen to twenty years. The whole daily life of such a community was regulated in its minutest details by rules established and enforced by the university. The time for rising and for going to bed, and for the two meals (*prandium* and *cœna*, at about ten and five o'clock), the dress (naturally clerical), the mode of instruction, the study-hours (*resumptiones*) — for each and all of these there existed rules. Of course there was no lack of things forbidden: noisy conduct, loafing about, bearing weapons, the introduction of women,

etc., were prohibited. We must of course assume, and it could if necessary be proved from numerous records, that in those times as in our own the prohibitions and the rules were circumvented in all sorts of ways.

Teachers

In the higher faculties the number of instructors was not great: three to six theologians, about as many professors of law, and one or two of medicine, would make up a very considerable university. The theologians and the jurists held as a rule ecclesiastical benefices which were incorporated with the university. The professors of medicine practised their profession besides teaching, and were the least important part of the university. The teaching of the individual professors was supplemented by that of the *baccalarii* who gave lectures. In the faculty of arts the numbers of students and teachers alike were considerably greater; the number of instructors in this faculty in a large university may have reached twenty, thirty, or even more. The elder ones held positions in the colleges, sometimes also small benefices; but

the majority, without a fixed income, were dependent on the sums received from the students, whether as board-money or examination and lecture-fees: *pastus*, *minerval.* In this faculty, furthermore, teaching was not as a rule regarded as a profession for life, but as a mere intermediate stage. Very often the *magistri* who taught *in artibus* were at the same time students in one of the higher faculties, as candidates for the degrees there given, after attaining which they would settle down in some beneficed lectureship in that faculty, or pass on to some similar position, most naturally one under the control of the church.

Course of Instruction

When the *beanus* or school-boy came at the age of fifteen or sixteen from the local school, where he had acquired the learned language, Latin, to the *studium*, the university, his first care was to have his name entered by the rector in the matriculation-book. For this a fee had to be paid, which, however, was often remitted *propter paupertatem*, or sometimes *propter reverentiam* — the latter in the case of

already well-known scholars, and doubtless also of pupils recommended by them. He then applied to one of the lecturing *magistri* in the faculty of arts for admission to the number of his *scolares*. Then, when he had formally laid off the *beanium* or state of pupillage with the aid of the older students, or of the *magister*, or of the dean — the oft-described *depositio* was the rite of initiation, consisting of all sorts of symbolical ceremonies, which emphasized the significance of this entrance into the world of academic culture — he became a student, *scolaris*, *studens*. He then began to take part in the prescribed lectures and exercises in the *facultas artium*, unless indeed he was deficient in years and in Latin, in which case he was entered in the *pædagogium* or with a teacher, to acquire the learned language.

The course in arts extended over three or four years. It was divided into two parts, separated by the first examination, for which our *scolaris* presented himself after a course of study lasting one or two years, consisting chiefly of logic, but also of physics. When he had shown himself to have attended the pre-

scribed courses, to have taken part in the required number of disputations, and to have gained thereby the quantum of knowledge called for by the regulations, the first academic degree, the dignity of *baccalarius* (later written *baccalaureus*), was conferred upon him with public formalities. Examinations and the bestowal of degrees took place only at stated times; on each occasion of the kind a considerable number received the degree together, and each received a definite rank in the class according to the result of his examination. After an additional course of study of several years, directed upon the remaining philosophical sciences, physics, mathematics and astronomy, metaphysics and psychology, ethics with political science and political economy, the second examination was held in like manner, and the second degree — *magister artium* — bestowed. The successive steps in the other faculties were similar to these.

It is noticeable that as a rule the new *magister artium* had to bind himself to lecture for a few years in the *studium in artibus* (*biennium complere*). Apparently a double object was sought

to be attained by this custom. First, the maintenance of the *studium*, for without such an obligatory system of gratuitous teaching there would probably have been a dearth of teachers in the faculty of arts, in the absence of any fixed salary for them; and secondly, it is likely that the custom was thought to ensure the perfection of one's own training, for in the Middle Ages the doctrine of Aristotle, that the proof of the mastery of knowledge is the ability to teach, was firmly held. And it was consistent with this belief that even the *baccalarius* was called upon to take an active part in the work of instruction, as well in lectures as in disputations. Furthermore, the triple scale of *scolaris*, *baccalarius*, *magister*, is evidently identical with that of apprentice, journeyman, and master workman which we find among the mediæval artisans. The apprentice learns; the journeyman learns and produces, or even teaches when occasion offers; the master workman produces and teaches. In the local schools we find the same scale: schoolmaster, (*ludi magister*), associate (*socius*, often called also *baccalarius*), pupil.

And yet we must not believe that the completion of the entire course of the faculty of arts, with the possible addition of the course offered by one of the higher faculties, was the rule in mediæval times. The majority quitted the university without having gained even the lowest degree, the bachelor of arts. At the present day this is rare, the rule being the completion of the course, and the reason for it the fact that appointment to public office everywhere presupposes the candidate to have finished a definitely prescribed course of preparation. This was not the case in the Middle Ages; indeed, attendance at a university was not by any means made a condition of appointment to any office. The prerequisite for any ecclesiastical office — and it is these that are almost exclusively concerned, since a civil service hardly existed — was ordination. Before the ordination an examination was held by the bishop, but this demanded of the candidate scarcely any more scientific training than some knowledge of the Latin language. It is likely that as late as the end of the fifteenth century a very large part of the clergy had never been

connected with any university. We may well assume that only for the higher clergy did attendance at a university gradually come to be regarded as incumbent upon their rank and position; and in the chapters certain places were often reserved for graduates in divinity. A knowledge of law in addition showed itself more and more important for the clergy. For the inferior positions, on the other hand, the degree of master or bachelor of arts was in itself a weighty recommendation, and even the mere certificate of university matriculation may have given its holder an advantage over other candidates. The *rotuli* sent to the Roman Curia from time to time by the older universities are proofs of this. These were lists of all members of the university, in the order of their academic rank, down to the simple *scolaris*, and all present themselves as candidates for benefices.

Subjects and Methods of Instruction

Certain subjects of instruction presented themselves to the mediæval mind as a matter of course. The problem there set was, to hand down the firmly fixed body of learned knowl-

edge. Theology draws her cognitions in the last instance from revelation; the Holy Scripture (*sacra pagina*) is the ultimate source and the decisive authority, for the understanding of which, it is true, the interpretation adopted by the church is binding. Out of the working-over and systematizing of this body of dogma with the instrument of natural reason, there arose the great structures of mediæval theological doctrine, and these formed the real subject of theological instruction. In the faculty of law the vast compilations of Roman and canonical law formed the source and the substance of the teaching, commentators and scholiasts being drawn upon for elucidations. Similarly the faculty of medicine drew its materials for instruction chiefly from certain writings of canonical reputation, above all the works of Hippocrates and Galen, with some of the subsequent commentators thereon, particularly the Arabian. Finally, the faculty of arts taught the philosophical, *i.e.* all purely theoretical sciences, so far as these could be deduced from natural reason. In this case also the subject-matter of instruction consisted of canonical

treatises, above all the writings of Aristotle, besides which Euclid in mathematics, and Ptolemy in astronomy, were studied. Further, a small number of more modern text-books was employed, as, for example, the *Summula* of Petrus Hispanus, the *Sphæra* of Johannes de Sacro Bosco.

As to the forms of instruction, we find everywhere two parts, each supplementing the other: the lecture and the disputation.

It was the object of the lecture (*lectio*, *prælectio*) to impart the subject-matter of learning. A canonical text, for instance a work of Aristotle (of course in a Latin translation), was read and explained, but not dictated, the hearers being supposed to have their own texts. The instructor might, however, read the text aloud — among other reasons, to lead his students to emendation and better punctuation of it. Yet the interpretation was the point of real importance. The memorial verses which cast into schematic form the interpretation of legal texts, may, with slight adaptation, suit the other texts well enough:

> Præmitto, scindo, summo, casumque figuro,
> Perlego, do caussas, connoto, obicio.

The object of the disputation was to give practice in the application of the subject-matter of learning. Of this the first application was the decision of disputed questions. The disputation was evidently not less important than the lecture; at the great public disputations the whole faculty, masters and students alike, appeared in academic garb. One of the *magistri* as presiding officer proposed the theses; the other *magistri* in turn attacked his assumption with syllogistic arguments; the bachelors, as respondents, defended the theses by pulling the arguments to pieces, the chairman interposing when necessary. Along with these regular disputations, where the scholars remained silent listeners, we also find others conducted by masters or bachelors as exercises for the students. In the Middle Ages great weight was attached to the disputations. The number necessary to be attended for the acquisition of degrees was exactly defined, and *magistri* who neglected them were threatened with punishment. Apparently the real importance of the instruction given was thought to centre in them; and this was doubtless a correct view.

They formed unquestionably an excellent means of making the acquisition of knowledge a sure and certain thing, and of affording practice in its application. They were calculated to increase the ready command of knowledge, and a quickness to perceive the trend of others' thought and its relation to one's own conceptions. We may very well assume that in both departments the mediæval man of learning possessed a skill hard to discover in modern times. The scholar of to-day depends on works of reference for many things which the other had always ready in his memory; and the power of giving exact and logical exposition to one's own thoughts, on the moment and in comparison with those of the adversary whom one faces, would not be readily found to-day, because it is almost never cultivated.

Disputations, it must be admitted, are no longer possible in our universities. They presuppose two things which no longer exist: first, a community of living, school-fashion, of teachers with students which does not and cannot exist under present conditions, and secondly, a fixed body of philosophical principles universally

accepted, or more correctly, an authoritative scholastic philosophy, such as the faculties of arts possessed in the works of Aristotle. Of this mediæval scholars were well aware: *contra principia negantem non est disputandum.* From the sixteenth century onward these two conditions have gradually disappeared, to become finally extinct in the nineteenth. As a consequence, the disputation, first falling into disrepute, then disappeared altogether — all but a small remnant, which remains in the *Promotion* [ceremony of bestowing the doctor's degree] as a mere relic of the olden time.

II

Development of German Universities in Modern Times

The modern world separated itself from the Middle Ages in the great revolutionary periods of the Renaissance and the Reformation. Both of these mighty movements affected deeply the condition of the universities.

The conquest of the German universities by the movement known as Humanism was carried

through during the first two decades of the sixteenth century. A bitter struggle between old and new filled this whole period. The entire traditional conduct of the universities, in particular the instruction in arts and theology, was rejected with the utmost scorn by the new culture through its representatives the poets and orators, who had in fact begun to appear as early as the latter half of the fifteenth century, and to whom form and substance alike of this teaching seemed the most outrageous barbarism, which they never wearied of denouncing. In the *Epistolæ Obscurorum Virorum*, which issued about 1516 from the band of youthful poets gathered about Mutianus at Erfurt, the hatred and detestation felt by the Humanists for the ancient university system raised a lasting monument to itself. Among the men who are representative of the scientific power of Humanism, Desiderius Erasmus and Reuchlin stand at the head. The latter opened the way for Hebrew studies in Germany, and gave to the pursuit of Greek an impulse which brought good results. Erasmus, a man of stupendous industry and energy, imparted to the

German the "eloquence" of a simple, natural and elegant Latin; he awakened an appreciation of fine culture, and smoothed the way for philological and historical investigation; and finally he brought about a connection between Humanism and theology by his studies in the New Testament, the tracing back of the scholastic systems of theology to their original sources, to the Fathers of the Church, being chiefly his work. It is noteworthy that Erasmus always refused a chair at a university, though such were offered him repeatedly and urgently.

The new culture conquered along the whole line, and by 1520 had forced its way into all the larger universities. New schemes of study granted a place to the new ideas in lectures and examinations. Everywhere two things came into prominence: 1. The old ecclesiastical Latin was replaced by classical Latin; Roman authors, particularly the poets, were made the subject of lectures, for the purpose of imitation, and the old translations of Aristotelian texts were driven out by new translations on principles advocated by the Humanists. 2. Greek

was taken up in the faculty of arts, and courses in the language and literature were established in all universities. Among the earliest "Grecians" of German universities are especially to be noted Reuchlin, who taught for a short time at Tübingen and Ingolstadt, Melanchthon at Wittenberg, P. Mosellanus at Leipsic; and among the Latinists Conrad Celtes at Vienna, Eobanus Hessus at Erfurt, and H. Bebel at Tübingen.

After 1520 Humanism, an aristocratic and secular impulse, was overtaken and succeeded by a movement of vastly greater power and depth — the religious and popular movement of the Reformation. For a brief space the Reformation may well have seemed a reinforcement of Humanism, united as both these were in their hatred of scholastic philosophy and of Rome. Hutten and Luther are represented in pamphlets of the year 1520 as the two great champions of freedom. Inwardly, however, they were very different men, and very different were the goals to which they sought to lead the German people. Luther was a man of inward, anti-rationalistic and anti-ecclesias-

tical religious feeling, and Hutten a man of rationalistic and libertinistic humanism. Hutten did not live to see the manifestation of this great contrast; but after 1522 or 1523 the eyes of the Humanists were opened to the fact, and almost without exception they turned away from the Reformation as from something yet more hostile to learning than the Old Church herself. In very truth it appeared for a time as if the Reformation would be in its effects essentially hostile to culture. In the fearful tumults between 1520 and 1530 the universities and schools came to almost a complete standstill, and with the church fell the institutions of learning which she had brought forth, so that Erasmus might well say: *Ubi regnat Lutheranismus, ibi interitus litterarum.*

But the last word had not yet been spoken in this matter. To a certain extent the alliance between Humanism and the Reformation remained intact. It presents itself in the person of Melanchthon. In long but unassuming activity, in spite of the unfavourable circumstances of the age, this man whose joy was in his work planted and tended humanistic studies

in German universities and schools. For forty-two years (1518–1560) he lectured at Wittenberg on nearly every philosophical, philological, and historical subject, as they were understood in those days, in his own person representing almost an entire philosophical faculty. After about 1550 Wittenberg was the most largely frequented German university. From all districts of Germany, even from all parts of Europe, young men flocked to hear him. When Melanchthon died there can have been but few cities of Protestant Germany in which there was not left at least one grateful pupil to mourn the loss of the *Præceptor Germaniæ.* Long after his death his grammatical and philosophical text-books formed the basis of instruction in schools and universities.

The development of German universities, as it was subsequently worked out under the influence of Humanism and of the Reformation, will best be divided into three periods: —

1. The period of denominational universities controlled by the established churches of the several states. This period, which extends to the end of the seventeenth century, is characterized

by the predominance of theological and denominational interests; and the theological faculty is the most prominent.

2. The period of the invasion of the universities by modern philosophy and culture, covering the eighteenth century. It is characterized by the ever-increasing importance of philosophy and of the philosophical faculty, and of the faculty of law as well. Halle and Göttingen are the leading universities.

3. The period of the greatest influence of the German universities on the thought and life of the nation. This period is coextensive with the nineteenth century; it is marked at first by the predominance of philosophy, then by the continuous development of special scientific investigation in the fields of natural science and history. The philosophical faculty stands in the foreground, while the faculty of medicine holds the place of next prominence.

First Period

Denominational Universities Dependent on the State Church

The first act of the great religious struggle reached its end in the Peasants' War; the second began with the establishment of new churches on Protestant foundations. From now on, throughout the next two centuries, the universities stood in the very closest connection with the various established churches. The old universities, both Protestant and Catholic, were restored in the spirit of the new ecclesiastical constitutions, and a great number of institutions were newly created.

The first new Protestant foundation was the Hessian university of Marburg, opened in 1527. After that came Königsberg (1544) in the old realm of the Teutonic Knights, which had been transformed into a temporal duchy; and Jena (1556), for the old Electoral Saxon dominions which remained to the Ernestine Line after Wittenberg, along with the Electorate, had fallen to the Albertine Line. In spite of the

diminutiveness of the state and the scantiness of its means, the abode of the Muses on the river Saale [Jena] has to this day maintained an honourable position among German universities. In 1576 a university was established at Helmstädt for the Brunswick dominions, with a very considerable equipment. During the seventeenth century this was one of the most important Protestant universities; especially prominent among its instructors were the theologian Calixtus and the versatile scholar H. Conring, father of German legal history. Among the more important universities in the seventeenth century belong also Altdorf and Strasburg, both established by and in free towns of the Empire; the former was developed out of the gymnasium which had been transferred in 1573 from Nuremberg to Altdorf, and was erected into a university in 1622, while the university at Strasburg (1621) was a similar outgrowth from the civic gymnasium, which had been provided with courses of academic lectures. Less prominent were Giessen, an offshoot from Marburg, founded in 1607 on Lutheran principles for Hesse-Darmstadt, as Marburg

had gone over to Calvinism, and Rinteln in the dominion of Schaumburg, established in 1621; also the Reformed university at Duisburg, in 1655. Of greater importance on the other hand was the university founded at Kiel in 1665 for the duchies of Sleswick and Holstein. By the side of the universities proper sprang up a considerable number of so-called academic gymnasiums, establishments which gave opportunities, after the completion of the real school courses, for attending certain philosophical and theological lectures. Some of these have maintained themselves down to our own time, as, *e.g.* in Hamburg. The Reformed school at Herborn also had considerable importance in the seventeenth century.

The same period called into existence a considerable number of new universities in Catholic countries. The earliest was Dillingen, founded by the Bishop of Augsburg in 1549, for some time the chief seat of learning in Catholic Germany. Next in order came Würzburg (1582), endowed by the Prince-Bishop Julius with quite respectable means. There followed Paderborn (1615), Salzburg (1623), Osnabrück

(1630), Bamberg (1648) — all episcopal foundations. In territories of the House of Hapsburg there were founded Olmütz (1581), Gratz (1586), Linz (1636), Innsbruck (1672). Some of these, however, were at no time complete universities, but merely philosophico-theological institutions, possessing certain privileges, and chiefly under Jesuit management, while a few possessed in addition a faculty of law.

On the whole, the universities established during this period have shown themselves less capable of living than the universities which date from before the Reformation. Of the ten Protestant foundations mentioned, five still survive: Marburg, Jena, Königsberg, Giessen, and Kiel, besides the reëstablished university of Strasburg. Helmstädt, Rinteln, Duisburg, and Altdorf came to an end during the great upheaval of all the German states at the beginning of the present century. So, too, the episcopal universities ceased to exist when the spiritual power was abolished, only Würzburg remaining as a Bavarian university, while others are still partly preserved in the form of theo-

logical seminaries. Of the Austrian universities dating from this epoch, Gratz and Innsbruck still exist.

The chief impulse to these numerous foundations was given by the intensified territorial principle prevailing in religious and political matters. Each and every territory strove to possess its own university, in the first place to make sure of sound doctrine — *i.e.* of doctrine in harmony with the confession adopted by the state church — and, in the second place, to do away with the attendance of the youth of the country at foreign universities, and to keep the money at home. The means necessary to the establishment of a university were not very great; a few thousand florins or thalers sufficed to pay ten or twelve professors, an old convent would furnish the buildings, and there were no "institutes";[1] but if the means at hand were too scanty even for this, the national school was at least converted into a *gymnasium academicum* or *illustre*, for which, when opportunity should offer, the full privileges of a university could be requested. These

[1] *i.e.* Seminars, scientific collections, etc. — Tr.

could now be obtained from the Emperor without serious difficulty.

— As a necessary consequence, the universities of this epoch were wanting in the universality of those of the Middle Ages; the freedom of movement[1] from country to country, interterritorial, even international, which characterized the older *studium generale*, existed no longer. The boundaries of each land, or at least of each creed, were also the boundaries of the university's field. Yet, even in this period, the roving instincts of the young German scholar could not be chained fast. Again, a stricter control of teaching was exercised in this period than in any which preceded or followed it. The anxious fear of heresy, the pains taken to ensure orthodox teaching, were not less great in the Protestant than in the Catholic world — perhaps even greater, since here a lapse was possible in either of two directions: on the one hand toward Catholicism, on the other toward Calvinism. The imprisonment of intellectual life within the narrow limits of confessionalism makes this period the strangest to us from a

[1] *Freizügigkeit*

mental point of view of any in the history of our people.

Casting a glance at the organization and the mode of teaching prevalent in the universities during this period, we find in the main the old forms preserved. The four faculties still remain, and with them the fundamental scheme of instruction and examination. Still, the *baccalarius* gradually becomes extinct in the sixteenth century, and the *magister* is replaced, at first in the higher faculties, by the more dignified *doctor*, only the *magister artium* maintaining itself down to the present century.

The theological faculty still held in this period the first place, and had gained greatly in real importance; for theological study had now become, what it was not by any means in the Middle Ages, a necessity for the whole body of clergy — a natural consequence of the fact that doctrine had made a vast advance in prominence as compared with ritual, first in the Protestant world, and thereby also in the Catholic. And while Protestantism thus influenced Catholicism, it was in its turn affected by the latter, in being drawn back from its original devotion

to Biblical studies to scholastic dogmatics. The Bible is indeed no doctrinal structure whose formulæ and conceptions offer a firm ground for polemics or for the exclusion of heretics.

The faculty of law, also, grew in size and importance, keeping pace with the development of the modern state and of the civil service. The learned judge gradually crowded out the unlearned sheriff, the official of state with an academic training the knight who held his office in fee. In the method of instruction a change was brought about in that the systematic presentation of subjects replaced the interpretation of canonical texts; the *mos Gallicus* replaced the *mos Italicus*.

The faculty of medicine had less growth to show; it remained the weakest down to the nineteenth century. Still, important changes were gradually introduced into the methods of teaching; anatomy and physiology began to cut loose from tradition and from the text-books, and to depend upon direct observation.

The philosophical faculty, as the *facultas artium* was now called, retained in the main its former position, continuing to form the connect-

ing link between the schools below it, which taught only the languages, and the faculties above it, which gave special scientific training; its object was to supplement the school instruction in general or philosophical science. The subject-matter of instruction was formed as hitherto by the Aristotelian writings on logic, physics, psychology, metaphysics, ethics, and politics, either directly from the original text — in the sixteenth century a task frequently undertaken, though hardly likely to have been accomplished to any great extent, was the basing of lectures upon the Greek text of Aristotle — or in adaptations and manuals, for which Melanchthon had established the model. By the side of the philosophical course we find the humanistic, consisting of courses on the classical authors, with appropriate exercises in rhetoric and poetry; but this loses in strength and importance the further we are removed from the "humanistic" period. After the middle of the seventeenth century this course gradually died out, together with Latin versification; the French language and literature forced their way in, at first into court circles, where for more than a

century they held undisputed sway. The classical and humanistic culture now suffered the same fate which it had prepared for scholastic and mediæval culture at the opening of the sixteenth; it became old-fashioned and ridiculous. The holders of professorships of rhetoric ("eloquence") and poetry exhaust themselves in complaints of the contempt shown for the *belles lettres*, and of the returning barbarism of the Middle Ages.

As for the regulation of the mode of life, with the dissolution of the old ecclesiastical system the forms of living derived from it also passed away. The conventual community of the *collegium* presupposed the celibacy of the masters. A further cause of the change was the increase in the average age of the students, inasmuch as the development of school-systems, particularly through the princely or national schools in Protestant, and the Jesuit colleges in Catholic, countries, led to a lengthening of the school course. And it was helped along also by the ever-growing ascendancy of the higher faculties, in which attendance on lectures had never been strictly enforced. How-

ever, it remained quite customary down to the eighteenth century for professors to receive students in their houses as boarders. It may also be noted that in most universities a *convictus* was established, at which a greater or smaller number of native students were supported from public funds while pursuing their studies, in return for which they bound themselves to serve their country subsequently in the civil service, or, more often, in ecclesiastical or scholastic positions. A connection was maintained between the *convictus* and the national schools in which boys were trained, at public cost, for learned studies. The funds for both kinds of institutions were most commonly derived from suppressed monasteries and the like.

These conditions remained mostly unchanged until toward the beginning of the eighteenth century. At the end of this period the universities had sunk to the lowest level of influence and reputation which they ever reached in Germany. To the advanced culture which centred in the princely courts, they seemed to be antiquated, nay, almost worn out, institutions. Such a man as Leibnitz disdained to seek a uni-

versity position, preferring the court, where he thought himself better able to count upon appreciation and support of his ideas and his comprehensive plans. The universities were now without any considerable influence on the life and thought of the people. The number of university instructors of the seventeenth century whose names have been preserved in the memory of even the learned world is, in comparison with those of the sixteenth or of the eighteenth century, so small as to be hardly noticeable. And it is well known into what extravagance of wildness the student-life of those days had fallen. Drinking and brawling — things that are connected in more ways than one[1] — had reached the full flower of their development in the middle of the seventeenth century, and it was only through stern interference on the part of the government that a semblance of order was gradually restored.

[1] "Das Saufen und Raufen, Dinge, die nicht blos durch den Reim verwandt sind." I have been unable to keep the point in English. — Tr.

Second Period

The Eighteenth Century

The new era was ushered in by the foundation of two universities, Halle in 1694, Göttingen in 1737; and the establishment of a university at Erlangen for the Franconian principalities of Anspach-Baireuth soon followed, in 1743. All three are still in a flourishing condition. On the Catholic side Breslau and Münster are to be mentioned. The Jesuits equipped a philosophical and theological academy at Breslau, in 1702, which was granted the privileges of a university. The development of this institution into a full university came about only after the reorganization and consolidation with the university of Frankfort-on-the-Oder, in 1811. Münster, which was opened as a university in 1780, under the sovereignty of the Elector of Cologne, has existed since 1818 as a so-called Academy, with faculties of theology and philosophy.

Halle, the university of the rapidly growing Prussian Brandenburg, received its impress chiefly from three men: the jurist Christian

Thomasius (the originator of the institution), the theologian A. H. Francke, and the philosopher Christian Wolff. Thomasius, a pupil of Samuel Pufendorff, the first instructor in natural law [*Naturrecht*] in any German university — the first chair for the treatment of law after the new method was created at Heidelberg in 1662 — was through and through a type of the new French court culture. He published the first monthly magazine in the German language, beginning in 1688, and was the first to employ the German language in university lectures. Despising alike scholastic philosophy and humanistic *eloquentia*, theological orthodoxy and traditional jurisprudence, he soon got into violent disputes with his native university, Leipsic, where he lectured as *Privatdocent*. Being forced to yield, he retired to Halle, where he met with a favourable reception, and the circle of students which he gathered about him became the nucleus of the university opened in 1694. Francke, the foremost representative of pietism, who, like Thomasius, had been driven from the orthodox Leipsic, turned the theological teaching of the

university of Halle in the direction of devout study of the Scripture and of practical Christianity. The great orphan asylum at Halle which was founded by him served his pupils as a school for training in practical religion and in the instruction of the young. In the latter half of the eighteenth century, J. S. Semler, the originator of critico-historical treatment of the Old Testament, taught in the theological faculty at Halle.

A man of the greatest influence, finally, was the philosopher, Christian Wolff, who taught from 1707 to 1723 at Halle, and again from 1740 to 1754, having been in the interval a professor at Marburg. His expulsion from Halle under Frederick William I., and his honourable restoration by Frederick the Great, mark the great change that had come about. The general acceptance of his philosophical system really implied the end of scholastic philosophy in German universities; and in its place modern philosophy, under the guise of Wolff's system, assumed control of university instruction. Hitherto the object of philosophical instruction had been conceived to be the

transmission and application of the accepted scholastic doctrines (*i.e.* Aristotle, in Melanchthon's adaptations), chiefly with the practical view of preparation for theological studies. The new philosophy took its stand squarely on the ground of reason. *Reasonable Thoughts* is the general title of Wolff's works in the German language. It aimed no longer to be *ancilla theologiæ*, but without prejudice sought after truth, and mathematics and the natural sciences in their modern form composed its foundation. And in an equal degree it disclaimed all transcendental authority for morals and for law, basing them exclusively upon the nature of man and of society.

In the course of the eighteenth century, Wolff's philosophy made its way into all the Protestant universities. The higher faculties as well, chiefly those of theology and of jurisprudence, came under the influence of the *Reasonable Thoughts*; rationalism, with its motto "Nothing without sufficient cause," became the ruling principle.

It was a most decisive change that was thus ushered in. For their deliverance from the

stagnation into which they had sunk by the end of the seventeenth century, and for the ability to assume the leading position in the intellectual life of the nation, they have above all to thank the adoption of the Wolffian philosophy. The fact that the universities of the countries to the west of Germany were not able to absorb the modern philosophy, and that they remained standing on the ground of confessionalism, is the real reason for the smaller importance of the part which they play in the life of those peoples. In France and in England the leading spirits are outside the pale of the university, in Germany they are within it.

To Halle belongs the glory of being the first really modern university, for it was here that the *libertas philosophandi* on which the modern university rests, the principle of untrammelled investigation and untrammelled teaching, first took firm root. In Halle itself this was plainly felt. At the celebration in 1711 of its founder's birthday, Professor Gundling delivered an oration *de libertate Fridericianæ*, which lauded the youngest of universities as the stronghold of free thought. The close was as follows:

Veritas adhuc in medio posita est; qui potest, adscendat, qui audet, rapiat; et applaudemus — bold words indeed, which yet expressed exactly the great change that had come about. The older system of university instruction had started in each case from the assumption that truth was given, that education consisted in the transmission of this truth, and that it was the duty of the controlling powers to take heed that no false doctrine be imparted. The newer system starts from the assumption that truth must be sought, and that it is the proper task of education to give the skill and the impulse necessary to the search. And so, by thus doing, the universities carried out to its logical conclusion the process begun by the Reformation.

During the latter half of the eighteenth century there grew up a rival of Halle which afterward surpassed her — the university at Göttingen. By the end of the century Göttingen ranked as the fashionable university. Here counts and barons of the Holy Roman Empire studied political science and jurisprudence under Schlözer and Pütter; here Mosheim lectured on church history, theology, and pulpit

eloquence, and J. D. Michaelis on Oriental subjects; here were active Albrecht von Haller and his successor, Blumenbach, in their day the representatives of the science of man, of physical anthropology, as well as the celebrated astronomer Tobias Mayer, the brilliant physicist Lichtenberg, and the accomplished mathematician Kästner. Finally, the new science of classical philology found its earliest nursery in the university of Göttingen; the philologians, J. M. Gesner and J. G. Heyne, to whom is owing the reintroduction of Greek authors into university lectures, found a new point of view for the treatment of classical writers; not mere dead learning, nor imitation of Latin and Greek models, was their aim, but a lively and vivifying communion with the great authors of ancient times, the supreme models of artistic taste. This was the point of view of the New-Humanism, and from it the study of the antique was directed towards an intelligible and a human end; the task now became the development of sensibility and taste for the beautiful and the true in literary presentation. And this new humanism stands in no contrast, but rather in

a relation of lively reciprocal influence, with the contemporary German poetry which was blossoming forth into richness, and which also found a headquarters in Göttingen. It will suffice to allude to Haller's poems, to Gesner's German Society, and to the *Hainbund.*

Comparing the condition of German universities which had developed itself by the end of the eighteenth century, in succession to the state of affairs during the two preceding centuries, with their condition at the end of the seventeenth, we may sum up the differences under the following heads:

1. The scholastic philosophy has been replaced by an independent and rationalistic philosophy, which recognizes no decisions by mere authority.
2. Instead of the deadening pursuit of ancient languages for the sake of imitation merely, we find a lively pursuit of the various branches of classical philology for the purpose of a general human culture.
3. As a result of this change, German has replaced Latin as the language of the university.

4. In the teaching the principle of freedom in investigation and instruction has prevailed.
5. Consequences of this are the dying-out of the disputation, and the gradual disuse of text-books, which were replaced by the seminars. Gesner established the first philological seminar in Göttingen, and that at Halle under the philologian F. A. Wolf soon followed.

Third Period

The Nineteenth Century

This period also was ushered in by the establishment of several important universities. The lead was taken by Berlin, the capital of Prussia, where a university was founded in 1809, under memorable circumstances, in order to testify "that Prussia will not give up the custom which she has long practised of influencing chiefly the higher mental training, and of seeking her power therein, but will on the contrary rather begin anew; and (what is surely of equal importance) that Prussia will not isolate herself,

but seeks rather, in this matter, as in others, to remain in living touch with all countries that are by nature German." Thus Schleiermacher[1] explains the idea and the task of historical and national importance set for the university of Berlin.

Not long after this, in 1811, the ancient Viadrina was transferred to Breslau, and united with the institution there existing to form one new and great university. After the conclusion of peace a new university was established on a great scale at Bonn, for the newly acquired western territory; and the new state of Bavaria provided itself in 1826 with a great central university at Munich, in which the old national university, Ingolstadt, survives. The list is closed with the university of Strasburg, restored in 1872 by the new German Empire. Thus political changes reflect themselves in the changes of the universities.

Another transformation was carried out together with these. The universities ceased to wear the sectarian garb of the State Church.

[1] *Gelegentliche Gedanken über Universitäten* [*Opportune Thoughts on the Universities*], *p.* 145

Just as all the larger German states, in the great upheavals at the opening of the century, laid aside the confessional unity which they had on the whole hitherto preserved, so the universities also laid off their confessional character. In a certain sense they approached again the universality of the ancient *studium generale*, not however any longer on a religious basis, but rather on a foundation of general human culture. The old international character returns, though the effect is felt rather in the contrary direction. During the Middle Ages German students sought foreign lands, going to Paris and Italy, while nowadays strangers come to Germany from the Far East and the Far West.

In this period, as far as an influence upon the ideas and the intellectual life of the whole nation is concerned, the faculty of philosophy stands in the forefront. To this faculty alone belong probably as many names famous in science as to the three other faculties together, just as it is regularly the most strongly represented in point of numbers among the entire teaching body.

At the opening of this period philosophy holds the prominent place; and it was Kant, the sage of Königsberg, whose philosophy succeeded the Wolffian, during and after 1790–1800, in domination over the German universities, the Catholic as well as the Protestant. This was followed by the speculative philosophy of Fichte, Schelling, and Hegel, who by their instruction at Jena made that university for a time the centre of this movement, about the end of the century; while the subsequent removal of Fichte to Berlin, and the lectures given there by him, and afterwards by Hegel, transferred this supremacy to the Prussian capital. Hegel exerted a powerful influence on the entire educational system of Prussia. In fact, his philosophy may well be called the Prussian state-philosophy during the years from 1820 to 1840, and in a double sense: it was the philosophical system officially acknowledged by the state or at least by the Ministry of Education, and on the other hand Hegel was the enthusiastic apostle of the "state-idea." This condition lasted until the accession of Frederick William IV., who detested the Hegelian rationalism,

and called the aged Schelling from Munich to Berlin to combat it. Along with Fichte and Hegel, Schleiermacher made his influence widely felt by means of philosophical as well as theological lectures. As representative of another tendency in philosophy, the positivist, may be named Herbart, who lectured at Göttingen and Königsberg. His philosophical ideas have gained a considerable influence since the decline of Hegelianism, especially in the Austrian universities.

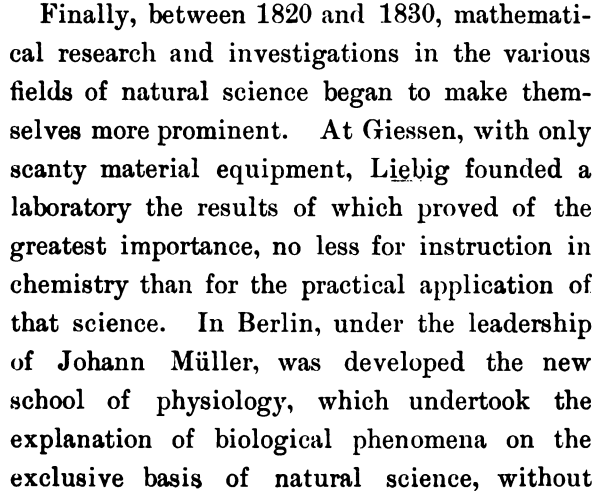
Among the intellectual forces of this period the second place belongs to the new humanistic philology. F. A. Wolf, who soon proved the victorious rival of the aged Heyne, lectured at first in Halle, and afterwards at the university of Berlin. This university, founded with the active coöperation of W. von Humboldt, Wolf's personal friend, was from its very inception intended to be a chief seat of classical learning, and has to this day remained true to its purpose. Here (simultaneously and in succession) Boeckh, Lachmann, and Haupt taught. Trendelenburg, the restorer of Aristotelian philosophy, for many years an influen-

tial teacher, united philosophical with philological studies. The two other new universities distinguished themselves as well as Berlin. In Bonn lectured Niebuhr, Welcker, Brandis, Ritschl; in Munich, F. Thiersch, Spengel, Halm. Leipsic preserved her ancient reputation through Gottfried Hermann, and in Göttingen Otfried Müller taught.

Of much importance, too, was the development of new branches of philological research. Above all must be mentioned the establishment of Germanistic studies by the brothers J. and W. Grimm, who lived and taught first in Göttingen, then in Berlin, and the newly beginning science of Romance philology, founded by Diez at Bonn. The study of the languages and literatures of the Orient also took on a fresh impulse. It is enough to mention the names of Bopp, the father of comparative philology, of Lepsius, the Egyptologist — both in Berlin, and of F. Rückert, the great linguistic scholar and poet, the glory of Erlangen.

Most significant was the mighty development of historical research. First of all, Leopold Ranke of Berlin must be named in this connec-

tion as a most influential teacher, after whom comes a long train of prominent scholars in the lines of research which he inaugurated, chiefly in the investigation of "sources" [*Quellenforschung*]. We may also remark that, in this period, university instruction in history and historical literature affected considerably the political ideas of the nation, working chiefly in the direction of the struggle for political unity. It was no mere chance that the eminent historians Dahlmann, Waitz, Droysen, and Häusser played a part in the parliaments of 1848.



Finally, between 1820 and 1830, mathematical research and investigations in the various fields of natural science began to make themselves more prominent. At Giessen, with only scanty material equipment, Liebig founded a laboratory the results of which proved of the greatest importance, no less for instruction in chemistry than for the practical application of that science. In Berlin, under the leadership of Johann Müller, was developed the new school of physiology, which undertook the explanation of biological phenomena on the exclusive basis of natural science, without

calling in the aid of metaphysical principles, and which exerted a powerful influence on the development of medical science.

While the first half of this century was thus characterized by a long succession of pioneer workers, and of foundations laid for others to build upon, the second half is marked rather by a lateral growth, and this is true of both principal branches of scientific investigation, the philological-historical, and the mathematical-physical. The constantly increasing specialization and subdivision of the fields of research is a necessary concomitant. This state of affairs shows itself in the organization of the university, in the remarkable multiplication of professorships, of academic "institutes," particularly those of natural science, and of the seminars. It is not unlikely that the number of full professorships in the faculties of philosophy has, on the whole, been doubled or even trebled during the present century. Berlin began with twelve full professorships in the philosophical faculty, and has now fifty-three.

If we may attempt here to give a sketch in outline of the history of the three other facul-

ties, this may be done for the theological faculty somewhat as follows. At the beginning of the present period theology is still most closely connected with philosophy, a connection which both the rationalistic and the speculative theology exhibit most plainly. A peculiar position is occupied by Schleiermacher. On the one hand, he was himself an original philosophical thinker; on the other hand, he took pains to free religion from the mixture with philosophy to which it was subject in the orthodox no less than in the rationalistic theological systems, and this he sought to do by conceiving it as a function rather of the heart than of the mind. Since about the second third of the century two new tendencies, entirely opposed to each other, have been thrusting philosophical theology more and more into the background. The first is the so-called positive school, which establishes itself upon dogma and the authority of the church. In the Protestant church the chief representative of this tendency was Hengstenberg at Berlin; in the Roman Catholic church it made a part of the great movement toward ecclesiastical restoration

which led to the Vatican Council, and which is now striving everywhere to carry out strictly the principle of authoritative unity of doctrine, both in theology and in philosophy. The second is the historical-critical tendency, represented chiefly by Baur and the Tübingen school among the universities, and outside of the faculties of theology by D. F. Strauss.

A somewhat similar scheme might be adopted to describe the development of the faculty of jurisprudence. Here also, at the beginning of this period, we find in the old *Naturrecht* ["natural law"] and in the new philosophical construction put upon the law and the state, the preponderating influence of the Wolffian, the Kantian, and the Hegelian philosophy successively. Afterwards, as in the case of theology, the philosophic conception of the subject is driven out on the one hand by the historical school (von Savigny in Berlin), and on the other by the positive school (Stahl in Berlin). In the most recent times a renewed leaning towards a philosophical conception of theology as well as of law seems to be developing. In A. Ritschl's school there

is an unmistakable leaning toward the Kantian philosophy, and with it no less plain a tendency to adhere to Schleiermacher, with his double position. In like manner, there has recently appeared, under the influence of the economical and sociological conception of history, a historical-philosophical or sociological conception of legal and political science.

The medical faculty also is seen to have been at the beginning of our own epoch under the controlling influence of theories of natural science. After about 1830, these paths were abandoned, and investigators turned to strictly scientific methods of research. Within the last generation the faculties of medicine have made astonishing progress. Until nearly the end of the eighteenth century they were, in point of numbers, insignificant appendages to the faculties of theology and law; at the present day, in not a few universities, the number of their students and professors assures them the first place. The medical "institutes" of all sorts have increased and expanded wonderfully, and they occupy a correspondingly great space in the economy of the university. While their

growth in size is undoubtedly in the main the result of the rapid increase in wealth of the population at large, their internal improvement has certainly contributed in no small measure to this result. More perfect methods of investigation, especially the use of the microscope, have made possible most important advances in the knowledge of the causes and nature of diseases, from which in turn have resulted great improvements in the healing art, particularly in surgery and in the treatment of wounds.

As regards the external form of the universities, no changes of moment have been made in the general plan. The division into faculties, after some objections to this "mediæval" organization were overcome at the beginning of the century, has remained intact. But in some universities the number of faculties has been increased, either by the addition of a second theological faculty for the confession hitherto unrepresented, or through the separation of faculties of natural science and of political science from the faculty of philosophy. In the outward forms of life, the last remnants of ancient customs have disappeared. There are no

more *convictus*, no more professors who keep lodging-houses for students, no fixed courses of study, and no private tutors, and even the university jurisdiction over the students has all but vanished. The student is now, like everybody else, an ordinary citizen; after he has matriculated, and has given his hand to the rector in token of his promise to obey the laws of the university, no official inquires about him for several years; he is left entirely to his own devices. It is plain that this release from all scholastic discipline has gone hand in hand with the gradual increase in the average age of the student. We may regard twenty years as the average age at which students matriculate for the first time; and to men whose ages range from twenty to twenty-five a system of instruction and government adapted to a school is evidently quite unsuited.

In the organization of the teaching body, we remark a change in the position of the faculty of philosophy. Its task used to be the general scientific preparation for special professional study in one of the so-called upper faculties; it has now become a professional school for a

particular profession: that of teaching in the higher schools. Down to the beginning of the present century the teacher's office was an appendage to clerical orders in the sense that a candidate in theology generally took up for a time the profession of teaching, securing a position either as master in a public school or as tutor in a private family until a position in the church was open to him. Nowadays teaching has become an independent profession for life, and since the middle of this century changes to church positions have been extremely rare. The introduction of the examination for the profession of teaching (*examen pro facultate docendi*) in 1810 marked, in Prussia, the beginning of the consistent and complete separation of two professions previously united. Its purpose was the elevation, or rather the creation, of a class of gymnasial teachers with a uniform and scientific preliminary training and with a solid *esprit de corps*. The necessary internal condition for the exertion of this effort was the emancipation of the spirit of the age [*Zeitgeist*] from theology and theological views, and its approximation to the humanism of Goethe and Wolf.

In the substance and the form of instruction the change for which the way had been prepared in the preceding period has been completely brought about. The German university teacher no longer regards it as his business to hand down a definite sum of generally accepted truth, but rather to impart the results of his own researches. The expression *tradere* has maintained itself in our advertisements of lectures, but even the youngest ***Privatdocent***, perhaps he more than any other, would regard it as an offence to his dignity should any one take him quite at his word in the matter. The object of the instruction given corresponds with this feeling; it is to lead on the hearer also to engage in independent thought and research. The demand made upon the student is not the absorption of ready-made truths, but that he shall learn to work and to think in a scientific way.

This is especially true of the faculty of philosophy. In it research, and instigation to research, form the controlling purpose. In the other faculties the transmission and inculcation of the knowledge necessary as the technical equipment for one's profession play naturally

a greater part; physicians, judges, clergymen, are not, and do not seek to be, scholars above everything else; the advancement of the practical profession makes itself more plainly felt even in the university. The faculty of philosophy, on the contrary, is really the learned faculty. This is true of its teachers as well as of its students, as may be plainly seen from its relations with the academy.[1] Between the various academies of Germany and the faculties of philosophy there exists the most extensive personal union, while the other faculties are in the main only occasionally represented in the academies. Another indication is found in the fact that the seminars, the real nurseries of research, originated in the faculty of philosophy; and it is from them that the dissertation has taken its rise. The significance of the degree awarded by it is also characteristic. The doctor's degree is taken in the other faculties also; only rarely in theology and jurisprudence, and as a rule in the medical faculty. But the doctorate in medicine has quite another character. The

[1] Of course the various Royal Academies are here alluded to. — Tr.

acquisition of the doctor's title is in this case rather the result of social pressure from without, since nobody, not even the young M.D. himself, supposes that he has shown himself by his dissertation to be a learned investigator. Yet this is to a certain degree the meaning of the doctorate in philosophy.

With all these conditions the shaping of the teaching in the faculty of philosophy is in harmony; it is throughout directed toward the production of scholars. The professor of philology, of history, of mathematics, of physics, proceeds entirely upon the assumption that he has before him, in his lectures and exercises, exclusively future scholars and professors. He overlooks, as it were on principle, the fact that in reality the great majority of his hearers look to a practical profession, the profession of teaching. Or rather he does not overlook it at all, but he is convinced that the teacher can bring to the exercise of his profession no better training than the training of a genuine scholar. To this everything points. The old conception of the proper task of a gymnasium, even the traditional designation

of the institution as a "learned school" [*Gelehrtenschule*] points to it. What need had the teacher in a "learned school" — the official name "gymnasium" dates only from the beginning of the present century — of any other professional training than "learning" [*Gelehrsamkeit*]? Another indication, and from a different quarter, is the specialization, quite modern and constantly increasing, of the departments of instruction in the gymnasiums. Every gymnasium has its teachers of ancient and of modern philology, of mathematics, of natural science, of history and of theology, forming of itself almost a little university. Lastly, the purely learned character of the tests by which the candidate's fitness to receive the *facultas docendi* is to be proved point not less definitely in the same direction, for the tasks here set are subjects for scientific researches and essays, and, in fact, such essays very frequently proceed from them. Thus it is, then, that the German gymnasial teacher, as well as the university teacher, feels himself in very truth to be thoroughly a man of learning, at least at the outset of his duties, when the

impressions made upon him by the universities are still strongest. And to the best of them something of this character sticks throughout their whole life.

Without doubt this condition of affairs has its dark side. This shows itself in the fact that many a teacher who lived happy in his entire devotion to learned studies while at the university, feels himself somewhat disappointed when he enters a school, as though he had not found quite the right place. The lowest class of a gymnasium gives no occasion whatever for the display of learning, and indeed the highest not any too much. It shows itself also when, as has often happened, a teacher who has never received any real pedagogical training, and who suddenly finds himself placed before a class, needs considerable time to enable him to feel at home and to develop a manner that is suited to him — a want which the recently introduced "gymnasial seminars" are designed to fill. But, on the other hand, it must not be forgotten that the old view which sees in the gymnasial teacher a man of learning, has brought us very important advantages. Upon it depends

the high esteem, higher in Germany than in other countries, in which the whole class of gymnasial teachers is held. This is certain to be true in the future as well, for in the hierarchy of officials the teacher will never stand at the top, but must maintain his position through scientific worth. Upon this view depends also the character of the German gymnasium, which even to this day retains something of the nature of the *Gelehrtenschule* that at an early period directs the pupil's mind to scientific work and research; and if but a single real scholar were to be found in the faculty of a gymnasium, the distinctive character would be preserved to the whole institution through him. Finally, the whole character of our faculties, even of our universities, depends upon the same idea; they form scholars, because the gymnasial teacher is held to be a scholar. There is no doubt that the great abundance of learned workers in all fields of which Germany is so proud is due to this fact. And if the superfluity may occasionally become burdensome, we must still not forget that herein lies, in great part, the reason for the remarkable productivity of the German

people in all branches of scientific research, above all in the fields of philology and history.

On this point a Frenchman has recently expressed an opinion which a German could not with propriety utter, which indeed he could hardly hold with propriety. Ferdinand Lot says, in an interesting little study:[1] "The scientific leadership of Germany in all fields without exception is nowadays acknowledged by all nations. It is a settled fact that Germany alone produces more than all the rest of the world together; her supremacy in science forms the *pendant* to England's supremacy in commerce and on the sea; and perhaps it is even greater." It may well be that something, perhaps that a good deal, must be subtracted from this praise. But M. Lot is certainly not mistaken when he attributes the greater part of this supremacy to the organization of German universities, to their uniform corporative constitution, to their freedom for teacher and learner, and most of all to the direction of their instruction toward research. This again is true, in the highest degree, of the philosophical

[1] *L'enseignement supérieur en France*, 1892.

faculties. In them the true character of the German university as the nursery of research shows itself most distinctly; by them the other faculties are constantly drawn in the same direction. And so, whatever should threaten to rob the philosophical faculties of this their real character would endanger the position of the German universities and of Germany in the world of science.

Nor must we forget that this existence and influence of the universities is possible only in a living historic continuity. Their real breath of life is the historic spirit which surrounds the German universities as a whole, and each one in a peculiar form. There is certainly not one among them which has not at some time or other played an important part in the life of our nation, or at least in some branch of learning, or which has not counted among her own some proud names of lasting renown in the history of science. Whoever has trodden this ground feels himself encompassed by this atmosphere of historic life. When he enters the ranks he feels that thereby he takes responsibilities upon himself. Not all feel them in equal degree,

but this much we may say, that every one feels them in some measure who enters the university community as a teacher, that nearly every one, too, who first as a student enters the university town experiences the same feeling of responsibility to some degree. Something of this sentiment each one carries with him into the practice of his profession: the German parson, or physician, or judge, would gladly be not only this, not only a practitioner, but to some degree, small though it might be, a scholar — at least far enough to feel in after times an interest for the labours in his own field. But — and this is a point to which I shall return — all this is particularly true of the teacher in a German gymnasium, who feels himself not only an official and a teacher but also a scholar, and among whose fellows no small number succeed, often in narrow circumstances and not rarely in distress, in taking an active part in scientific research. This it is which has hitherto given the German gymnasium its character; its pride has always been that it is a nursery of scholars, and that in its own way and its own sphere it stands for something like what the university stands for

on a larger scale; it is not merely an institution for memorizing and recitation, but a place where scientific work is done and the art of scientific work is taught.

May the agitation which seeks, through constant extension of the system of examinations and of control, to make of the teachers mere officials, and of the schools mere institutions of learning by rote, never reach its goal! If our gymnasiums once lost completely their character as *Gelehrtenschulen*, the universities would not be able to maintain their position in permanence.

CHAPTER III

THE GERMAN UNIVERSITIES IN THEIR RELATIONS TO THE STATE, TO THE CHURCH, AND TO THE COMMUNITY

Relations to the State

THAT the universities should be state institutions seems to a German natural, almost a matter of course. But it was not always so, nor is it necessarily so. Scientific research and instruction in science are not in themselves proper objects for the state to undertake. The first universities were private corporations which carried on the work of scientific research and instruction under the general protection of the state. Like other societies, they governed themselves; they made their own laws, chose their officers, had jurisdiction over their members, and perpetuated themselves by the admission of new *magistri*; in the latter case, it is true, there was a formal coöperation on the

part of the church. The English universities still subsist in this way.

In Germany the state university has established itself with historical necessity. In their very origin the German universities were, as we have seen, foundations of the sovereign of the land. From the fifteenth century on we find everywhere the power of the princes in the ascendant; they made the universities feel their will through reforms and ordinances which they carried out without much trouble, in spite of the occasional resistance which these corporations offered in reliance on their right of establishing their own statutes. The Reformation having added spiritual power to the temporal power of the Protestant princes, the universities now came under the direct control of the sovereign, as institutions having the definite purpose of training officials to serve their sovereign in the temporal or the spiritual administration. After the middle of the seventeenth century the state developed more and more into a comprehensive charitable institution [*Wohlfahrtsanstalt*] which aimed to provide for all, the smallness of the German countries favouring

the conception of the state as a great household under the fatherly management of the prince. In the eighteenth century this view gained unrestricted acceptance; the principle was generally recognized that the satisfaction of all important needs of the life of the community was the affair of the state, to be accomplished by state initiative or at least under state inspection. The government looked out for the development of traffic and of trade, the creation of roads and canals, the cleaning and lighting of the streets, the care of the poor, the encouragement of industry, the proper regulation of wages and the prices of food, the providing of wholesome mental pabulum by means of books and theatrical performances, etc., etc. Of course, then, the task of providing the necessary instruction for youth also fell to the state. The German common school, which made the tender and the acceptance of general elementary instruction the duty of the citizen, was established during the eighteenth century. The universities, too, were absorbed into the general educational administration. The Prussian code merely formulates the already existing law,

regarded as a matter of course, when it declares at the opening of the section on the school-system: "Schools and universities are establishments of state, having in view the instruction of youth in useful knowledge and sciences."

It is true that the nineteenth century has not held so unconditionally to the principle of state omnipotence. The various constitutions formulate, in their general regulations, a number of limitations of state action, as, for instance, paragraph 20 of the Prussian Constitution declares that science and its teaching are unrestricted, while paragraph 22 adds that everybody has the right to impart instruction and to found educational institutions. Yet even here the condition is added that every such person shall first prove to the officials of state his moral, scientific, and technical competence, and agree to submit to their constant inspection. And it is a fact that the complete subjection of the educational system to the state has only been brought about in this century. Above all, the *Gelehrtenschulen*, which in the last century were still almost exclusively municipal establishments, have now, for the most part, come

under direct administration by the state. Besides this, through the creation of Ministries of Education with the necessary executive apparatus, the whole system of education has now become formally represented in the body of officials of state.

The following lines will describe in more detail the legal status of the German universities.

They are institutions founded and maintained by the state. Outside coöperation, as formerly given by the papal or imperial power, is no longer known. The right to confer degrees proceeds also from the state, which likewise grants a constitution and establishes statutes. The state, as well, founds professorships and academic institutes. The professors and the officials of these institutes are officials of state. The universities are under the direct control of the Minister of Education, and not subordinated to the provincial authorities. At a number of universities there is to be found a *Curator*, as the local representative of the Minister; in some cases he is called Chancellor. His duty it is to exercise control in general,

on behalf of the state, to maintain and to further the excellence of the university's work, and especially to watch over the financial administration. It is through him that the university communicates with the Minister of Education.

But while the university, in point of legal position, is thus incorporated into the organism of state education, it nevertheless occupies, as a matter of fact, a peculiar position, which one may almost call a position of exemption. It enjoys a degree of independence possessed by no other state institution; the state control of the lecturers is hardly to be felt. From the ancient corporative constitution, important features have been retained, above all the unrestricted right of choosing the academic officers. The head of the university is the Rector, who is chosen annually from the whole number of full professors. He represents the university in its external relations; the lower officials are subject to him; he admits candidates to matriculation, and exercises control over the societies and the meetings of the students. In like manner the Academic Senate is composed of delegates elected from among the full profes-

sors, the Rector being its chairman. The Judge of the University Court and the Deans also have seats in the Senate, which forms a general executive committee. The disciplinary control of the students is lodged with the Rector, acting in concert with the Judge of the University Court and the Senate. In Prussia he has at his disposal for the punishment of offences against discipline the following penalties: reprimand, fines not exceeding twenty marks, imprisonment not exceeding fourteen days, threat of suspension, suspension, and, as a last resort, expulsion.

The separate faculties possess a considerable degree of self-government. They choose annually a Dean from among their own members, who administers the business of the faculty. As officials the faculty-members exercise control over the instruction given, and it is their particular duty to ensure the completeness and correctness of the announcements of courses for each semester. Furthermore, they have the oversight of the student in respect to behaviour and study — a control of which, in the ordinary course of events, just as little is seen or felt as

of the control of the instruction given. They manage the various benefices, and conduct the prescribed examinations for these; they also propose subjects for prize essays, and award the prizes. Again — and this is their most important function — they hold the examinations for degrees, and confer the degrees through the Dean. Lastly, they extend the *venia legendi* to the *Privatdocenten*, and propose to the Minister of Education candidates to fill vacancies that occur in the professorships. In this respect they continue to this day to exercise a certain right of coöptation.

In the actual carrying on of instruction in the university there prevails practically an absolute freedom. The control exercised is really limited almost exclusively to providing for the delivery of the necessary courses, and to seeing that every duly appointed professor shall lecture. On the other hand, there are no official programs which prescribe, as is done for the schools, subject-matter, amount, and form of instruction to be given. The professor merely receives a commission to lecture on his general subject, and this commission is couched in very

general terms. It is his privilege to interpret this commission to suit himself; the various themes for his lectures, the number of hours to be devoted to them, the subject-matter to be treated, the methods to be followed — all this is left entirely to his own judgment. Of reports or of control by officers of inspection not a word is ever said.

We may truly say: A greater measure of freedom than that which the university instructors now possess they have never enjoyed. Down to the seventeenth century the instruction to be given was limited in substance to what might correspond with the doctrines of the church; and, after the sixteenth century, the regulations affecting extent and method of teaching were pretty rigid. In the eighteenth century extensive interference by the government with internal details of instruction was not rare; it occurred particularly often that the professors (collectively or, more often, individually) received directions as to the sources from which to draw their knowledge, or the manner in which they were to lecture and conduct their exercises. Even in the first half of this century

a similar interference was sometimes practised; for instance, about 1820 in favour of the Hegelian philosophy, about 1840 against it. At the present time attempts to interfere directly with the conduct of lectures and exercises are quite gone out of fashion, the subject-matter and the form of university instruction being left entirely to the private judgment of the instructor. In the gymnasiums the freedom of the teacher has been ever more and more sensibly restricted during the present century; in the universities the freedom of teaching has been more and more unreservedly acknowledged.

Opportunity will be taken hereafter to return to the subject of the *Lehrfreiheit*. A word may be said here on the mode of appointing the professors. This is done by the government. The extraordinary professors are appointed by the Minister of Education, the ordinary (*i.e.* full) professors by the sovereign himself. Nevertheless, the faculty coöperates in the appointment to a vacant full professorship by making proposals, accompanied by a statement of reasons for the nomination, three names being as a rule proposed. The government, however, is neither

legally nor practically limited to the names thus suggested. Bitter complaints have been made against this system; it is claimed that the door is thereby opened wide to intrigue, to nepotism, and the clique of schools. The German universities are accustomed to take such reproaches calmly, with the quiet that comes from a good conscience, and on the whole they may well do so. Where are there desirable positions where it could never be said that things sometimes occur which had better not have happened? In the main our universities have thriven on the system here described; and it would be difficult to find a mode of selecting professors which would better and more surely accomplish the desired end of putting the right man in the right place. The faculty's right of nomination tempers the absolutism of the ministers, which would generally, as a matter of fact, imply the autocratic sway of the head of some school; for the Minister, or his *Referent* in the bureau, could not be expected to have a competent judgment, certainly not in all branches, and would thus be compelled to seek privately the counsel of some

individual particularly competent in this field. As it is, he hears the voices of others — of experts and responsible men. On the other hand, the appointment by the government is necessary; only the central administration is in a position to survey the whole field, with its needs and the men capable of filling them, and to consider the personal questions involved with fairness. And a choice by the faculty alone would certainly give free scope, in the most unfortunate way, to the domination of schools and coteries, of personal interests, and of intrigue. In this sense the traditional practice of Germany seems to be the safest and surest. The custom of open competition for appointment, as followed in Latin countries, does not appeal to us; the submission of samples of work done, and the delivery of public lectures on trial would on the contrary prove a very poor means — at least in Germany — of opening a place for real merit; it would rather have the opposite effect of frightening away the most meritorious from the competition.

There seems, however, to be much more reason in the oft-made proposal to create a special,

fixed endowment for each professorial chair, with regular increase of pay for increase in length of service, both to avoid the bargaining about salary which now accompanies an appointment, and also to make the increase of income less dependent upon the number of "calls" the individual may happen to have had. The frequent change of position which is undoubtedly fostered by the existing system has certainly more evil than good consequences, from which the smaller universities suffer more particularly. If a regular increase in salary could be looked for, at least one cause of the ambition to be appointed to the larger universities would be removed.

Relations to the Church

The relations between university and church were originally so close as to justify the statement that the universities of the Middle Ages and, in a certain sense, those of the sixteenth and seventeenth centuries, were church institutions. From the eighteenth century onward the connection is loosened. In the nineteenth, as was remarked above, the universities, like

the states to which they belong, have entirely laid aside their denominational character.

The Protestant church has accepted the situation without difficulty; she has even refrained from taking offence at the preliminary training given to her clergy in institutions of the state, upon which she has formally no influence. Still, the church, from her intimate connection as the Establishment with the state, could perfectly well take the view that the problems whose solution properly devolved upon her might be safely left to the state to work out, especially as the latter is permeated with her doctrines. There is no doubt that the church has, in fact, always and very deeply influenced the whole system of instruction, from the common schools to the university. Only since the state has become unsectarian, and politics is affected by considerations of variable majorities in the legislatures, has the Protestant church come to feel the uncertainty of her position; and attempts are now becoming apparent to procure for the ecclesiastical authorities a decisive voice in the appointment of theological professors, since the higher ecclesiastical council

has long been privileged to give its opinion in the matter. At present there is no great prospect that these endeavours will succeed. And if they should succeed, it may well be doubted whether the Protestant church would be the gainer. If the church authorities controlled the appointments of professors of theology, the theological faculties could not maintain their present position in the universities; both teachers and students would stand with but one foot on the ground of the university, of free science. This, however, Protestant theology, which can thrive only in the closest reciprocity with free philosophy and science, could not endure. It has not, like Roman Catholic theology, the authority of an infallible church behind it; its strength rests on the living and personal strength of its champions. Nor could the Protestant church endure it. On the contrary, she would go to certain destruction on the rock of a narrow and partisan administration, such as would then be possible.

The relations of the university with the Roman Catholic church are of a different kind, not only in Protestant, but also in Catholic

countries. The Roman church is a great power, independently organized, and older than any modern state; she claims the right of regulating at her own pleasure the preliminary training of her servants, and in all important particulars she has everywhere made good her claim. The Catholic clergy receive their training for the most part at institutions which are held under immediate episcopal control, in seminaries for boys and for candidates for orders. The attempts made in Prussia after 1870 to bring the training of the clergy under state control have been abandoned. There is still, it is true, a certain oversight on the part of the state over the diocesan institutions, in that the scheme of instruction in the clerical seminaries must be laid before the Minister of Education, and the training there given must be expressly recognized as the equivalent of that furnished by the universities, in order to entitle the applicant to appointment to a charge. Otherwise the faculties of Roman Catholic theology also are dependent on the ecclesiastical government; before any professor is appointed, an understanding is reached with the

church authorities, and after that these authorities possess at all times, in the power to forbid attendance on the professor's courses, unfailing means of putting an end to his influence.

In quite recent times the attempt has been made in Roman Catholic circles to call into existence universities on the exclusive basis of creed, and in Belgium, France, and Italy, there are already quite a number of such "free universities." The project is already formed of founding a similar university for German-speaking Catholics, for the site of which Salzburg has been selected; but as yet the project does not seem likely to be executed except in the distant future.

Relations to the Community

The question may be viewed from three sides: 1. The duty of the university in the community. 2. The position occupied in the community by the representatives of academic culture. 3. The portion of the community from which these representatives have sprung.

1. Like all educational establishments, the university is called into existence by the needs

of society. In a higher stage of civilization the necessity is developed for professional services which presuppose a high degree of scientific knowledge.

There are, in the first place, three professions which demand, according to venerable tradition, a really scientific training: the spiritual, the cure of souls (*cura et regimen animarum*); the worldly profession of judicial and executive administration, the law and the civil service; and the medical profession. For these three callings the three so-called higher faculties form the professional schools, the theological faculty for the profession of holy orders, the legal for that of law and the public service, the medical for the profession of medicine. The philosophical faculty, originally not a professional school, has become such in the nineteenth century. Originally an institution which offered a general mental training, it is now a training-school for the profession of teaching in the higher schools.

In the most recent times new professions have associated themselves with these ancient ones, and demand not less than they a strictly scien-

tific preparation. The professions of the mechanical, the mining, and the civil engineer, the architect, the chemist (as the technical director of chemical production), the forester, and the scientific farmer, as well as that of the military or naval officer, have in these times come to require such manifold scientific knowledge that for those who practise them a special scientific training is indispensable. This modern need of the community has brought forth new forms of schools, which need be only mentioned here by name, but may not be passed over if we would comprehend the full extent of the term "academically trained class" — a term whose meaning and application have become much wider in our own day. First of all are here included the schools of technology, of which Germany now possesses nine,[1] almost all in capitals of the larger states, and all founded in the nineteenth century. There are also schools of forestry and of mining engineering,

[1] These were formerly called *Polytechnica*; the nine are at Berlin (Charlottenburg), Hanover, Aix-la-Chapelle, Dresden, Stuttgart, Munich, Carlsruhe, Brunswick, Darmstadt. — Tr.

of veterinary surgery, and of agriculture — the last generally connected with the universities. Finally, we may cite the schools of art and of military science as training-schools for professions which nowadays also demand a basis of scientific knowledge. Many of these training-schools, in their organization and the regulations concerning study and the life of the students, closely resemble the universities. This is especially true of the schools of technology.

The common task of all training-schools is the theoretical training in scientific knowledge for the future profession. The practical introduction into a profession follows, as a rule, the scientific training, but the case is different with the various professions. The physician enters at once upon his practice when he has completed his medical course, being considered to possess the practical training already; whereas the lawyer has still to gain the necessary experience by several years of practical work, and the military or naval officer takes a part of the practical training before the theoretical.[1]

[1] It should be stated for the information of readers not acquainted with Germany that academic degrees do not *in*

The continued existence of the universities is not less dependent upon the needs of the society which supports them than is their original foundation. For example, the variations in the prominence of different faculties everywhere point to a change in social relations and ideas. In the sixteenth century, when affairs of church controlled all public interests, the theological faculty held the first place in importance and in number of students. With the development of modern forms of state in the seventeenth century the faculty of jurisprudence comes to rival the eminence of the theological faculty. The rapid growth of the philosophical faculty in importance and independence at the end of the eighteenth and the beginning of the nineteenth century is an indication of the great change in the controlling ideas of the time, which may be described as a turning away from the supernatural and religious to a rationalistic and mundane conception of the universe. The church

any case entitle one to practise his profession. This privilege is gained only by passing the state examinations, and for it academic degrees are not necessary. — Tr.

loses her supremacy in the school, and in education generally; in the higher institutions of learning the disciples of the New Humanism take her place, in the common schools (*Volksschulen*) the disciples of Pestalozzi. The growth of the faculty of medicine in the nineteenth century, and the vast increase in the number of its students, are evidently most intimately connected with the general increase in wealth, which tends to augment the demand for medical advice and assistance. But besides this, an internal change of view also makes itself apparent; the *cura corporis* has become so important in our day that no confidence is felt save in the advice of a professional expert. Earlier ages readily lent an ear to traditional knowledge in such matters, but in the matter of the soul's health, on the contrary, mankind seemed to need professional guidance more than in anything else.

2. Concerning the position maintained in the community by the representatives of academic culture, we may affirm that in their entirety they form a stratum of society which is in the main homogeneous, and of which all the influ-

ential and controlling circles form part. To this stratum belong the clergy and all the higher officials, the teachers in the higher schools, the physicians, and the academically trained engineers and architects, the officers of army and navy forming a separate class within this larger group. All these bear their share of the tasks of government and administration; we find them in the various executive offices and courts of justice, in the consistories and the boards of school management, in the architectural bureaus and the sanitary offices.

All those who belong to these circles associate as a matter of right on a footing of social equality, which does not, of course, exclude differences of birth and rank. But whoever possesses university training belongs to "society"; he has a claim to *connubium* and *commercium.* And, on the other hand, he who has not enjoyed a university training, or some academic education of equivalent value, loses infallibly a good deal in the eyes of many people in Germany. One must at least have completed a gymnasial course, and have gained, in the shape of his "certificate of maturity," at least a poten-

tial right of academic citizenship. The result of this high estimate put upon academic training is naturally this, that young men of birth and wealth betake themselves to the university, or at least go through the *Gelehrtenschule*; in fact, at the present day, the entire German nobility and gentry feels itself bound to follow this course.

This is not the case in all countries, and it was not always the case in Germany. In the Middle Ages a liberal education was by no means a condition of belonging to the ruling class; and in the mediæval universities the nobility and gentry were scantily represented. Such studies were necessary only for the candidate for holy orders, and even here could be dispensed with by those of high birth. In the first half of the Middle Ages princes and nobles who lacked even the first elements of school training were quite common, and even in the second half they were no rarity.

The change began toward the end of the Middle Ages. It was in the cities that the ability to read and write first became more necessary and so more common; and by the

sixteenth century this had become indispensable for every one who occupied a position of any importance in society. For the nobility, however, a more extensive liberal training became a matter of even greater necessity. As early as the fifteenth century we find everywhere, at princely courts, men learned in the then modern law as councillors holding important positions. The nobles were thus forced to acquire an education in order to maintain themselves as the ruling class. During and after the sixteenth century many pupils of noble birth attended the new national schools and the Jesuit academies, who afterward doubtless passed through the universities; and in the seventeenth and eighteenth centuries it came to be regarded as more and more necessary to such an education of the young nobility as befitted their rank, that they should have studied at least a year or two at some university. The more fashionable universities, such as Halle and Göttingen, count with pride the hundreds of barons, counts, even princes, who were there matriculated. There was, it is true, another course open to them: the profession of arms, the way to which lay

through the cadet-school or the service as a page. And the greater princes were in fact, at that period, too grand for the universities, so that as late as the eighteenth century one will search in vain for the names of imperial or royal princes in the *Gelehrtenschulen* or the universities.

But in the same age, on the other hand, the education received at a university did not by any means assure the recipient of a place in society. It was at best the study of jurisprudence which gave this privilege. Candidates for positions in schools or in the church occupied as such a very inferior position; the candidate for holy orders who accepted a tutor's position in a noble house was still reckoned among the domestics, and even if he became head-master of a small public Latin school, he counted fees for singing at funerals, and New Year's gifts, as a part of his official income. Only as a parish clergyman did he gain a somewhat more highly esteemed position; yet even then it would never have occurred to him to class himself as the social equal of the lord of the manor.

It was in the nineteenth century that university education first rose to such importance as to entitle its possessor to claim social equality. This change is connected with the great social and political changes which have taken from the nobility the character of ruling class hitherto possessed by them. The nobility is no longer a privileged class of lords which has a hereditary claim upon all public offices which appear desirable; they are obliged, like any other class, to pass through the schools and the examinations, and then to take their places in the same line with other aspirants. Hence it comes that nowadays we find in the gymnasiums the sons of the most fashionable families. Even the scions of reigning houses are not wanting; they sit on the same forms with representatives of the extreme *bourgeois*, and these same contrasting types come together again on the benches of the university. Again, they sit side by side in all official bodies, even as high as the ministerial cabinets. And they are equally likely to meet as comrades in a corps of officers; the schoolmaster, as well as any other, is an officer of the Reserve, and may become a

privy councillor. So completely has culture gained the mastery over birth that the old idea of *mésalliance* has completely died out.

Closely connected with this change is a difficulty which to-day presses heavily upon the "learned" professions in all quarters. The professional income does not cover the cost of that standard of living which is requisite to maintain one's social position — at least not for the married man. The pressure is felt everywhere, most keenly, doubtless, among the teaching class, which is without exception recruited from among the less moneyed part of the community. Students of jurisprudence and of medicine come to a greater extent from well-to-do families, and in case of success in their professions can achieve very respectable incomes as lawyers and physicians. Those who take holy orders, however, are better shielded against temptations to extravagance by their position, and many of these also by living in the country. It cannot be denied that in these untoward conditions a source of discontent has been opened which it will be difficult ever to close again.

3. Finally, as regards the ranks of society from which proceed the possessors of academic culture, we may say that they come from all classes of society. In the gymnasium and the university we find the sons of peasants and mechanics, of village schoolmasters and petty officials, by the side of the sons of the aristocracies of birth and of wealth. As a matter of principle, all "academic citizens" feel themselves to be equals, and honour each other accordingly; the occasional pretensions of small cliques of aristocratic or plutocratic origin generally end by shutting their members out from the celebrations of their fellow-students. On the whole, this principle prevails: Whoever has earned the right of academic citizenship has gained thereby the privilege of treatment as an equal — a privilege which, in case of need, he may demand sword in hand, since nobody may refuse him satisfaction on the score of his birth. It is thus that we may speak of the democratic character of the German university, inasmuch as it excludes nobody by reason of his birth, and makes equals of all its members. This was admirably expressed by Ernst

Moritz Arndt in 1815, in his magazine *Der Wächter:* "As a citizen of the university, the son of the poorest and most obscure parents, if he be active and well-equipped in body and mind, may enter the lists with the noblest and proudest, and he who is the boldest in spirit, in will, and in courage, may, if he wish, prevail through inborn nobility. This proud equality, which but rarely shows itself again in the narrower life of later years, I rank among the greatest glories of German studentship, something which remains as a precious relic of what the whole great German people once was."

In Western Europe the case is different. Access to university training is restricted to narrower circles of society. In the ancient English universities living is so dear as to be within the reach of the wealthy alone. The mere cost of board and lodging in a college for the three terms of each year, extending over about six months, is over one hundred and fifty pounds. Besides this, there are no classical schools supported by the government; instead of our gymnasiums, which make such a course

of training possible for the children of people of small means, or facilitate it by the remission of tuition fees, in England the old public schools as well as private institutions, all boarding-schools which demand an expensive style of living, form the regular entrance to the university. In France, by similar demands made by the *lycées*, which are regularly organized as boarding-schools, the less wealthy portion of the community is, as a matter of course, excluded from advanced study; although here the church steps in with her schools which are thrown open to poor as well as to rich.

It cannot be denied, however, that of late years a narrowing of the recruiting-district for the learned professions has begun to be made in Germany also. The class of factory operatives in large towns, and that of agricultural labourers, is hardly represented at all in the universities. This is the dark side of the development which has brought about the state of affairs in which academic training gives one a place in the ruling class.

Historically this condition is accounted for

in the following way. In the mediæval university all classes of society were represented; the nobility scantily, only the younger sons who were destined for the church entering on university studies; most numerously the great middle class, the *bourgeoisie*; while sons of peasants and of the poorer classes generally were not wanting, who supported themselves on alms. *Solventes* and *pauperes* are the two classes which we meet with everywhere in the matriculation-lists. From the sixteenth century on the mendicant student disappears, together with the mendicant friar. But in the *Landesschulen* [national schools] and the *convictus* public provision was made for the poor student, and private stipends established for his benefit; in such arrangements the chief share naturally fell to candidates for church or school positions, whence the faculty of theology was unfashionable in comparison with the faculty of law, in which the nobility was represented. In the present century the necessary cost of university study is constantly increasing, the courses becoming longer and more expensive. In the eighteenth century it was quite common

for one to proceed to the university after concluding at an early age his attendance at the Latin school of his native place, or at the *Landesschule*, to help himself out at the university with stipends or as a private tutor, then to take service for a couple of years as tutor to some noble family in the country, and finally, after an examination (not any too difficult) before a member of the consistory, to receive an appointment to a school or in the church. Nowadays, the indispensable condition of appointment is nine years' study at a gymnasium, followed by at least a three years' course at a university, which is often prolonged over four years' time; and to this must be added the expensive year of service in the army.[1] Then follows a long period of waiting, owing to the great demand for places Tutorships in families have become rarer, because the sons of the nobility are sent to the cadet-schools or to the public schools. And so it has gradually come about that one cannot count upon earning a livelihood in a learned profession before he is twenty-five or thirty years of age.

[1] See p. 179, note

The consequence is that the *pauperes* of the old universities are now beginning to disappear, and there is noticeable in society a strong tendency to approve of this disappearance. "We wish no sons of insignificant families in our class" — so a lawyer or doctor may now and then be heard to say, and so too the school-teachers are commencing to say. We read in periodical organs of the class of academically-trained teachers, that their caste suffers if young men from the lower classes enter it, such as sons of tailors and glovers, obscure peasants, and village schoolmasters; that these bring with them, in most cases, a deficient liberal training, and always an insufficient amount of social culture, by which the position which they occupy toward their scholars is rendered more difficult.

Without doubt these scruples do not lack justification. Poverty is a great hindrance to successful study, and he who is forced to earn his daily bread in toil and privation by giving private instruction, will as a rule have remaining only too little time and strength and energy for the pursuit of learning. If the hindrance

be not overcome by signal talents and great strength of character, such studies become a misfortune. Nowadays cases of this are not rare. The hankering felt by parents to get their children into higher walks in life — a desire particularly common and intense in the case of the numerous petty officials — has in the last few decades contributed in no small degree to the overcrowding of the universities, and partly to introducing into them quite undeserving and undesirable elements. On the other hand, we cannot fail to observe that the rejection of the *pauperes*, which to all appearances will be carried through to an even greater extent, is not without its dangers; above all, the disintegration of the body politic is helped along thereby. If matters should reach the point where the great mass of the population, including the mechanics and the peasants with small holdings who now climb up into the learned professions through the intermediate stages of the schoolmaster and the subordinate official, should be no longer represented in these professions, then these elements of the nation would certainly feel the state and the

entire administration of the government as a rule by strangers. Among the Social Democrats, who are permeating first of all the industrial population of the great cities with their ideas, this feeling is already alive. To them the state appears to be an organization of the privileged classes to defend their own interests against the masses. I can conceive of nothing more effectual in spreading abroad this feeling than the actual exclusion of all who do not belong to the more prosperous classes of society from the university and the learned professions; the understanding by the cultured classes of the people at large and its life would disappear even more completely than is now the case, and the hard-heartedness of pride and unintelligent sentimentality would together bring about a complete estrangement. Nor is the consideration unimportant that the intellectual life of the nation would lose talents and powers which it could not give up without being exposed to the danger of mental poverty. We must not forget how many of our most famous men have sprung from quite obscure families. Winkelmann and Heyne, Kant and

Fichte, were born in the confined quarters of petty mechanics.

An excellent saying uttered by Jacob Grimm in his autobiography, as he looked back upon his own youth and the privations which encompassed it, gives fitting expression to the honour and the advantage of poverty: "Penury spurs us on to diligence and to toil, preserves us from many distractions, and inspires in us a not ignoble pride, which the consciousness of our own merit keeps upright, in the face of what position and wealth bestow upon others. I would make my assertion even more general, and attribute many of the achievements of the Germans to the very fact that they are not a wealthy people. They work up from below, and cut many roads peculiar to them, while other nations rather march along a broad and well-paved highway."

CHAPTER IV

TEACHERS AND TEACHING IN THE UNIVERSITY

1. *The Teachers*

IN the German universities, in all the faculties, three classes of instructors teach side by side: ordinary (*i.e.* full) professors, extraordinary professors, and *Privatdocenten.*

The *Privatdocent* is permitted, but not engaged or bound by the *venia legendi* which he has received, to deliver lectures and conduct exercises. The extraordinary professor is a regularly appointed official of state, and generally draws a salary, but having no seat or vote in the faculty he takes no part in elections, meetings, or university examinations. The ordinary professor is the officially appointed incumbent of one of the chairs existing in the faculty, the official representative of that branch of science. The ordinary professors collectively form the corporate body of the

faculty. There should be mentioned also the honorary professorships which are occasionally found. This is the form in which free opportunity is afforded scholars of mature age and conspicuous merit, to whom no full professorship is open, or who do not desire such, of engaging in the active work of instruction; their legal relation to the university, like that of the lecturing members of the academy, is not essentially different from that of the *Privatdocenten*. As a sort of supplement to the philosophical faculty may be reckoned the *Lektoren* [readers], or teachers of modern languages for practical use, who, in general, give instruction each in his mother tongue; and last of all the so-called *Exercitienmeister*, *i.e.* teachers of fencing, riding, and dancing.

The three chief classes of university teachers here enumerated represent likewise the normal stages of the academic career. The aspirant first "habilitates" himself as *Privatdocent*, is appointed after a shorter or longer time an extraordinary professor, and promoted as occasion may offer to a full professorship. Still, exceptions from this order are so common

that we can hardly speak of a fixed rule in the matter. Not every university professor has been a *Privatdocent*, inasmuch as scholars are not seldom called to a university chair from outside, this beihg especially the case within the faculty of philosophy, and gymnasial professors being oftenest thus appointed to the university; and, on the other hand, not every *Privatdocent* becomes a professor in the course of time. Not a few quit the university career to follow some purely practical calling in church or state, in a school or a library or some other public institution; and some remain *Privatdocenten* all their lives, particularly in the faculty of medicine, where a position as *Privatdocent* need interfere little with the actual practice of medicine. Again, the extraordinary professorship is by no means a necessary intermediate stage, direct promotion to a full professorship being not very rare. And finally, a permanent extraordinary professorship is not uncommon, particularly in the larger universities; and there are certain subjects for which such chairs only are ever established. Yet after all, with these restrictions, this may

be designated as the usual career of the German university professor.

As the *Privatdocent* forms a special feature of the German universities which has long challenged the attention of foreign observers, it may be well to remark upon his position and significance. Historically the *Privatdocent* may be viewed as a relic of the corporative constitution of mediæval universities. Whoever was declared by the faculty to be a *magister* or "master" of his science, originally received thereby the right of teaching in that faculty; and, as was observed above, in the faculty of arts this was not only a right but often likewise a duty. After the custom had arisen of rewarding the older *magistri legentes* in this faculty with a seat in the *collegium*, a benefice, or an endowed lectureship, a distinction was thus developed between the regularly appointed and paid teachers, who were bound to lecture publicly and gratis, and the masters who lectured for fees, without obligation or salary. The distinction was more sharply drawn when, after the Reformation, the system of regularly paid professorships, already exist-

ing in the other faculties, became firmly established in the philosophical faculty as well. With this change the obligation of lecturing after the acquisition of the master's degree disappeared, the maintenance of instruction being now assured by the professorships. In its place there gradually arose the demand for additional proofs of learning from one who sought admittance into the faculty as *magister legens*. These were the *Habilitationsleistungen*, [conditions to be satisfied before the "habilitation,"] such as are nowadays everywhere imposed. An applicant for the *venia legendi* at the present day must, after obtaining the academic degree in the appropriate faculty, also submit scientific dissertations in type or in manuscript, pass an oral examination before the faculty, and deliver a public "trial-lecture"; and as a rule "habilitation" is not allowed within a certain period (commonly three years) after the completion of the candidate's studies at the university. It may be added that the faculties are by no means bound to admit *Privatdocenten;* and it may be truthfully said that they are not at all lenient in bestowing the *venia legendi.*

The significance of the "habilitation" is this: it grants admission to the circle of those from whom the professorial *collegia* are replenished — if not exclusively, at least nearly so. While the *Privatdocent* acquires no legal right or claim to appointment to a professorship, he may yet, if he shows fairly excellent merit, particularly in the prosecution of scientific research, very well count on reaching at least an extraordinary professorship after a longer or shorter time. Of course there are unfortunate exceptions.

For the individual *Privatdocent* the years which he spends in this capacity have essentially the value of an apprenticeship. He has the opportunity of trying his skill as a teacher and of practising the art, and likewise that of developing himself as a scholar. His activity as a lecturer, which is confined within modest dimensions as regards the range of the subjects treated by him, and generally too as regards the number of his hearers, is certainly of the greatest value to the professor just beginning his career. Above all, he has a chance to practise the art of academic instruction, and that is

something that each one must learn for himself. The first mistakes, which nobody can avoid making, are made and overcome before a small circle of hearers; and if the adoption of the academic career should prove to be a mistake, it is still possible without too great loss to embrace another profession.

The consequence of this gradation of instructors is the juxtaposition of the three classes at every university. The important bearing of this condition upon the forms assumed by the teaching must not be underestimated; upon it rests one of the chief characteristics of the German university, the competition of several lecturers in the same branch, and the free choice of instructors thereby made possible for the students. The *ordinarius*, though the official teacher of his subject, is not the only one. For subjects of wider range, such as philology, history, physics, mathematics, philosophy, and in the other faculties as well as in the faculty of philosophy, there is as a rule at least one *Privatdocent* or *extraordinarius*, and in large universities several, who lecture on the same subjects with the *ordinarius*. To be sure,

arrangements are commonly made to avoid the duplication of a course in the same semester. But even this is frequent in the larger universities, so that the same course of lectures may appear more than once in the catalogue, and nothing hinders the student from choosing the course given by a *Privatdocent* or *extraordinarius*, if it suits his taste or his convenience better. The *ordinarius*, as the older and better known scholar, naturally has in most cases a great advantage over the others, besides which he is the director of the seminar or the institute, and takes part in the academic examinations as well as in those of the state. Yet the influence of the younger lecturers is often not inconsiderable, particularly in the larger universities. It is also important to note that these latter stand much closer to the students in point of age, and that it is easier for the *Privatdocent* to form intimate personal associations with the students, especially with the older ones.

It has been often observed, and is undoubtedly true, that this competition between older and younger instructors tends to impart fresh-

ness to the instruction given and to keep it out of ruts. In order to gain any position at all by the side of the elder and more famous professor the young man must do his very best; and, conversely, the elder man is preserved from the easy-going indifference to which the possession of exclusive rights is so apt to lead. If such a professor, following the natural inclination of advancing age, should withdraw completely into his own thoughts and doctrines, and disregard all that is new, or if he should entirely subordinate his teaching to his scientific investigations, he would very soon be reminded, by the decreased attendance on his lectures, that in order to attract youth he must himself remain fresh and vigorous, and take active part in the movements of the times. To hear a lecturer read the same old lectures year after year from notes yellowing with age — an occupation which is often wrongly held to be the chief business of the German professor — is a thing which has little relish for the academic youth of Germany, who very soon discover whether the instruction offered them is marked by diligence and love for the sub-

ject, by a lively interest, continual and thorough rejuvenation of the matter offered, or not.

Another point is of importance in this connection. The personal relation of the student to his teacher rests upon the fact that he is not assigned to this or that instructor by an outward compulsion, but that he decides upon this or that one through his own unrestricted choice. Naturally, however, it is not strictly true that in every case a decision is reached by reflection and deliberate choice; chance, habit, calculation, may affect the selection of courses. Yet it may be said with truth that the German student is, after all, not really obliged to take lectures under any instructor who does not suit him. He generally finds, even at the same university, another lecturer on the same subjects, and if that is not the case he seeks at some other university such instruction as is more satisfactory to him. The friendly relations which uniformly subsist between lecturers and students in our universities undoubtedly depend in part upon these facts. Discourteous treatment of instructors is at present almost unknown, but with the

introduction of obligatory courses, or of enforced attendance in any form, it would certainly appear.

A few remarks on the custom of paying fees for the lecture-courses[1] may not be out of place here. At first sight the custom may seem illiberal. Would it not be better to do away with this last relic of the mediæval taxation which has been abolished everywhere else? In the relations between the professor and his students especially this custom would seem to have certain disagreeable features; and who would not recall at once the practice of the Sophists so often referred to by Socrates? The payment of a fixed sum to the university, entitling the student to attend all the courses, or the throwing open of all the courses without fees, after the intellectual entrance-fee should be paid once for all in the graduating-examinations of the gymnasium, might seem to be a more dignified and liberal arrangement. Yet it will generally be found that university teachers adhere

[1] The original has *Privatvorlesungen*, *i.e.* the ordinary courses of lectures, so called in distinction from the *publice* lectures, for which no fees are charged, and of which each professor is bound to deliver a certain number. — Tr.

to the old practice — and not without cause. It is quite unlikely that the reason must be sought in selfish interests. The present holders of professorships, etc., would hardly be injured by a new dispensation. On the contrary, if an average were struck it is more likely that their incomes would be increased, and, in any case, would be assured against fluctuations. On the other hand, objective reasons of much weight may be urged. First, everybody prizes more highly that which he buys with his own money, and uses it to better advantage than that which has been presented him, a rule to which the student forms no exception. The case would not be altered by the payment of a lump sum for tuition, per semester; as it is, he acquires a claim to definite services by payments, the amount of which is practically left to his own discretion. The introduction of one general tuition-fee would lead to uncertain and irregular attendance on all kinds of lectures, which the authorities would then try to prevent by the adoption of scholastic rules and regulations. Under the present system the student generally chooses with serious deliberation the courses

which he really means to attend. Secondly, the lecturer feels that as the students have thus performed their part of the contract, so he must now fulfil his part, besides which his future income is in some measure dependent on the way in which he meets this obligation — a double incentive to do his best. I have no doubt whatever that, should the fee-system be abolished, and replaced by increase of salaries, from that very moment a strong tendency would make itself felt to diminish the amount of services done in return, both in quality and in quantity; that is, to turn the professorship as far as possible into a kind of sinecure, perhaps with the aid of deputies. The clergy of former days offers many examples of the same thing, and we might find them even nearer home. The same result is observable in foreign countries which have adopted this custom. The stranger in Germany is wont to be amazed at the number of lectures delivered weekly by the German professor.[1] To this tendency, innate

[1] The author plainly has not the average American professor in mind. An English or French professor might well find his German colleague overburdened; not so the

in mankind, to reduce the fulfilment of an incurred obligation to the minimum that will be accepted, the nature of the German professor would make no exception. The necessary consequence would be: increased, more vigilant supervision and more exact control, so that in this respect also the fee-system is a guard of liberty. And thirdly, the system tends to preserve the university teacher's liberty by making him to a certain extent independent of the government. He would be a mere official if he were put entirely on a salary. Thus it is that the payment of separate course-fees is a most important factor in the preservation of the ancient freedom of the German university. Its abolition would tend to transform the university into a bureaucratically conducted technical school with fixed courses, which would be the end of the university in the German sense of the term. The freedom which the German university offers is one of her chief attractions; and it is because the

American, unless at very exceptional institutions. Still, it should be borne in mind that the labour of preparation for lectures is generally very great. — Tr.

professorship is not exactly a public office, but a liberal profession, that it has an especial charm for the boldest and strongest minds.

2. *The Teaching*

As was explained in the introductory remarks, the character and the duty of the German university instructor are marked out by two points: he is at once an investigator and a teacher. The first point is the more important. It is not merely success as a teacher, but achievements in science, which prove most decisive in the estimation and selection of professors, and in judging the degree of success in teaching regard is had chiefly to the question whether the teacher encourages and trains his scholars to make scientific researches. However, the case is not quite the same in all the branches of science; what is here said is true mainly of the philosophical faculty, inasmuch as there is no doubt that decidedly more weight is attached to great talents for teaching in the faculties of law and medicine. Besides, the judgment of the educational authorities of the government may emphasize this side of the

question more strongly than is done in the judgment of the individual's compeers.

Of the form of instruction we meet with two varieties, lectures and exercises.

Lectures

The lectures are the ancient *pièce de résistance* of academic instruction; even to-day, in most subjects, they occupy the first place. They likewise receive especial consideration in the obligations put upon the professor, it being customary for the latter to bind himself to deliver one course of "public" and one of "private" lectures in each year.

The chief difference between "public" and "private" lectures is this, that the former are delivered gratis, the latter for fees. In their subject-matter a difference is also traceable, in that the chief systematic subjects which fall to each faculty are regularly treated of in "private" lectures, while the "public" lectures most commonly concern themselves with subjects of narrower range, it may be a minor branch of the science, or the interpretation of an author, or perhaps a group of problems

which command a wider interest. The difference manifests itself, furthermore, in the amount of time given to each kind of lectures, the "public" courses being delivered once or twice weekly, while each "private" course occupies, as a rule, four to six hours weekly, and some even twice as many.

The lecture, as a form of academic instruction, has often been made the object of bitterly derisive criticism. It has been said over and over since the days of Fichte and Schleiermacher, that the professors, alone of all mankind, think themselves still privileged to ignore the art of printing. Year after year they dictate unprinted text-books word for word to patient listeners, as was done five hundred years ago. Such a practice may have been necessary in the Middle Ages, whereas to-day we can draw our knowledge of most sciences better, more quickly and surely, from books. The stay at a university is, after all, only a costly luxury, and not always free from danger.

And in fact, if it were true that lectures consisted only in dictating and copying down

unprinted text-books, then we should have to acknowledge that (to use Schleiermacher's words) we could not see "why such a man puts people to the trouble of coming to him, and does not rather sell them, in the usual way, his stock of wisdom, which after all is composed in fixed characters; for to talk about the wondrous effect of the living voice in such a proceeding may well be called ridiculous." Yet dictation of this sort is to-day certainly an exception which grows ever rarer — at least outside of the faculty of law, where the old practice seems to have maintained itself most completely, and for quite intelligible reasons. In law, more than elsewhere, we have to do with a complete mass of knowledge, cast in fixed forms, and impersonal. Another reason is the great number of courses given by a single lecturer. In no other faculty are three or four courses likely to be delivered in the same term by one and the same instructor.

The real lecture, on the other hand — the real and living communication — has its justification to-day as well as in the times of Aristotle and of St. Thomas Aquinas, who did not

dictate after all, and to whose pupils books and the reading of them were likewise not unknown. Not even the most complete text-book can render the lecture superfluous, for the latter has quite another object in view. This object we may thus formulate: The whole course should give, in a series of connected lectures, a conspectus of some science in its entirety, of its chief problems and leading conceptions, of the facts which it has established and the manner of their establishment, of its connection with science as a whole, and with the important objects of existence; and this view should be original, it should have been gained by the lecturer's own engrossment in his subject, and it should be supported by a living personality. On the contrary, it is not its proper task to present the entire content of that science along with a complete bibliography. If it should attempt to replace the text-book in this respect also, it would always be at a disadvantage, and exposed to the objections above advanced. Even a mediocre text-book will surpass, in point of completeness of subject-matter, of accuracy of dates and bibliographical detail,

the most carefully elaborated and most faithfully noted course of lectures.

On beginning the study of any science, be it theology or jurisprudence, philology or history, natural science or medicine, one receives the impression that it is infinite and hard to grasp, so endless is the variety of facts, books, problems, opinions, investigations, which throng upon us and confuse us. It is here that the proper function of the lecture begins; to take the beginner by the hand and be his guide. It brings the whole subject before him in gradual and orderly development, shows him the most important problems and facts, and indicates to him the points of view from which proceed the proper conception and the successful solution of these problems. It presents to his mind the various possible opinions on such and such points, with a history of the forms under which these have appeared, and indicates the considerations most important to a final decision.

All this may well enough be contained in a book; and books in plenty result from lecture-courses. But it is precisely for the first intro-

duction to a study that oral communication retains peculiar advantages. These lie, above all, in the fact that science thus appears to the hearer as in possession of an indwelling personality and individuality, which put him at once into direct relations with the subject-matter, and convince him of its reality and its significance. A book is a dead and an abstract thing; it inspires no belief, for real belief is propagated from person to person. When a man who stands before us and addresses us, a man whom we have learned to respect and trust, puts his faith in science, and devotes to it his best efforts, even his life, then it is that we first acquire a real feeling for its actuality. It is here with science as with strange countries of which we have read in books or been taught in school. Presently there comes somebody who has been there himself, who has lived and toiled there for years. He tells of country and of people, how one reaches them, and what work and profit the land can offer. It is then that a sense of the reality of these things first grows in us. Africa or America exist no longer merely on paper, where there

is so much that has no existence elsewhere, but they are before us in tangible and accessible reality, and with our faith in them grows our encouragement to attempt to reach them. Just such is the attitude of the beginner toward science. From the words of the teacher standing before us in person, the past assumes a reality in the mind of the novice in history or philology such as no book could possibly give it. So, also, the minutiæ which no science can afford to disregard, the various readings and the fragments of authors, micrological observations, and laboriously gained developments of ideas, all these take on an importance in the eyes of the learner without which he would lose courage for the tasks before him. It was thus (if I may be permitted to introduce a personal reminiscence) that Trendelenburg succeeded in giving his pupils heart for the study of Aristotle. We had all heard a good deal of the philosophy of the ancient Greek, we had even tried to read him, but were deterred by the uncertainty whether it were worth while, or whether he were not altogether antiquated. But when, in the person of Trendelenburg, a

man appeared before us who fairly lived in the Aristotelian philosophy, and, as it were, still had personal relations with the Greeks, then it was that our faith in the subject sprang up, in its value for the present day, and with this faith came the courage to penetrate into that strange world of thought.

Aristotle's words are still true: "Who would learn, must first believe." To help to this belief is the first advantage, and perhaps the most important, which personal teaching possesses over mere instruction by text-book; nor must we forget the influence exerted in this direction by the presence of fellow-students and competitors.

Another consideration is this: A book is something finished and fixed. From the external point of view, while the book lies before us as a whole, the lecture offers us from hour to hour a small amount easily surveyed by the mind. Nor is this amount brought and exhibited to the hearers as something already produced, but it is produced, little by little, in the presence of the audience. It is well known how much livelier is the interest with which one follows

the genesis of anything than that given to the mere contemplation of what already exists; for this reason a map which the teacher sketches by a few lines on the blackboard impresses the outline of a country more surely and quickly upon the memory than the representation in an atlas, however much more complete the latter may be in itself. Just so the degree of interest with which the hearers follow the movements of the lecturer's mind is not easily called forth by a text-book, and this interest reacts upon the lecturer. As he thus enters into relations of lively mutual influence with his hearers, he finds, on the spur of the moment, the right form, the happy turn of phrase, the evident comparison. In such contact with them he comes to feel what is really alive and helpful, and what is bootless, mere hair-splitting, or useless ballast.

Finally, let us refer briefly to the essential difference between lecture and text-book as concerns their inward form. The text-book aims at unity and systematic progress, by preference after the synthetic method, proceeding from principles to details. The lecture-course

shows greater freedom of movement; it need not bind itself to a fixed scheme, but may follow this course in one part, and quite a different one in another part, if this seem to have pedagogical advantages. On the whole, the tendency will be to prefer the analytical way. The lecturer, instead of starting with an exhaustive explanation of fundamental conceptions and principles, will start from well-known facts and phenomena, in order to lead his hearers up to a definite conception, or, to quote an expression of Aristotle, will gladly choose the way from the *πρότερον πρὸς ἡμᾶς* to the *πρότερον φύσει* — the way from that which is nearer to the hearers to the assumptions of the science, while the text-book strives in the direction of synthetic development. Then, too, the text-book aims at completeness, uniformity, and accuracy in detail. Here, too, the lecturer is freer; yielding to the interest of the hearer or of himself he may very well linger at one chapter for greater minuteness of treatment, in order to pass more rapidly over another which may be not less important in the general system. The lecturer does not pretend to furnish

a book of reference, of which completeness and uniformity may properly be demanded, but to lead his hearers to a right conception of the subject; and different matters may be very differently adapted to giving the means of so doing. For instance, nothing prevents the lecturer from treating more exhaustively incidents and questions which may happen to excite unusual interest at the time; and it would be as foolish to disregard an interest naturally awakened among hearers as it would be unwise to follow up all such. But the overloading of a lecture-course with data and detail of various sorts, such as is usual in text-books, should be entirely avoided. Minuteness of detail will be of service in this case rather for occasional example or illustration. To impress a great mass of particulars on the minds of the hearers would be a hopeless task. What they should take away with them from the lecture is after all not so much a memory full of facts, or a set of notes useful for review, as a good conception of the science as a whole in its important outlines, quickened by their own observation of the way in which it is incorporated in

the person of the lecturer. If they have this, they will easily find their own way amid the mass of detail, and will use to good advantage the various manuals and works of reference. The best thing that a course of lectures can give, is a set of categories, of living effect, and it is precisely this that lectures can give much better than books. For this reason lectures will continue to be given as long as there shall be scientific instruction.

But the lecture may be regarded from still another point of view. It brings benefit not only to the hearer, but also to him who delivers it. It leads him, as often as he has occasion to deliver the course, to bring before his own mind the subject-matter as a whole, to compare the newest literature on the subject, to seek a new and better expression for his conceptions — in short, it does him the same service which a new edition of a book does the author; or rather it does even more than this, since it gives more living inspiration than the perusal of one's own book. The vogue enjoyed throughout the world by German text-books, *e.g.* in jurisprudence, may serve as a proof that Ger-

man professors learn something while they lecture.

A saying of Goethe, quoted by von Savigny in a discussion of this same subject, may bring our consideration of it to a close: "Writing is a misuse of language, quiet reading by oneself a wretched substitute for speech. All the influence which man can have upon man is exerted by his personality."

It is doubly true that the lecture cannot be worthily replaced by the text-book in subjects where observation plays an important part; so, for instance, wherever experiments are of chief importance, as in experimental physics and chemistry or physiology; so, too, wherever the discourse explains what is shown, as in clinics, or in archæology, and art-history. Since this form of instruction has become more common in the present century, we may well say that the lecture, far from becoming superfluous, has constantly become more necessary.

The value of the lecture conditions its form. Whatever effect it can and should have, it produces only as an unwritten lecture. This does

not, of course, imply an extemporaneous lecture, one which receives its form and content at the moment of delivery — a sheer impossibility. No one has such intimate knowledge of any science that the whole and the details are always at his tongue's end; and even then he would have to arrange his materials for the lecture, since the systematic order is not necessarily the order demanded by considerations of teaching. The lecture, then, will have to be prepared. This leads, as a rule, to noting down what one expects to say, and so to regularly prepared notes [*Heft*]. The notes may be more or less complete, according to the subject and to one's familiarity with it; at one time the whole lecture may be written out, at another the notes may indicate the exact development of the idea, or merely the chief data, formulæ, or catchwords. To dispense with notes entirely would show an unwarrantable self-confidence, and not be to the advantage of the hearers. There can be no objection to the lecturer's bringing his notes into the room to refresh his recollection of the train of thought, or to refer to them for occasional facts, quota-

tions, and the like. The lecture is not intended to resemble an oratorical work of art or a sermon, the effect of which is injured by the use of notes; its purpose is merely to present ideas to the reason, in unassuming and simple form. But the delivery must be so far free that the lecturer's eyes do not remain fixed on his manuscript, and that he shall find fitting expression for his thoughts on the spur of the moment. The mere reading off of a complete manuscript is to be avoided, if the real meaning of the lecture is to be preserved. A lecture thus read off has no life; it cannot give that feeling of reality which is imparted by a delivery that comes direct from the heart. It lacks also the element of suspense, in hearers as well as in the lecturer, which rivets one's attention, and to which both the excitement of fresh creation and the risk of failure are necessary.

It is not uncommon to alternate dictation with free delivery. The important heads are then dictated verbatim, and explanations added in unconstrained form. This is commonest in "systematic" lectures, to ensure a precise con-

ception of the fundamental ideas. In this case as well, if dictation be not confined to single formulæ and propositions, some of the effect is easily lost. The substance of what is stated then seems to be something rigid, and the pleasant illusion that the results are obtained for the first time in the course of the lecture is destroyed. The lazy hearer is also apt to confine his efforts to copying down the dictated parts, regarding the explanations as mere pauses from the labour of writing. When there is no dictation he is forced to extract the important matter by his own thought, and to fix it in his own language. There is no objection, however, to furnishing the students with a printed outline, which serves the double purpose of making it easier for them to find their way, and of saving the lecturer the trouble of giving bibliographical and similar details.

Seminars

The practical exercises of the seminar form, at the present day, an important supplement to the lecture-courses. To a certain extent they have taken the place of the former

"disputations"; yet their character is different, since their object is not, as in the disputations, to give practice in the application of knowledge already attained, but to give encouragement to the acquisition of knowledge. The seminars are the real nurseries of scientific research. It is true that their purpose was originally different. The earliest of their kind, the philological seminars founded in the last century in Halle or Göttingen, were, or were intended to be, pedagogical seminars for future teachers in the *classical schools*; but in fact they were (especially that of F. A. Wolf) before all else institutions in which the technic of philological research was taught, and this is true in a still higher degree of the philological seminars and societies conducted in the present century by G. Herrmann, F. Thiersch, F. Ritschl, and others, all of them being schools for philologians, not for teachers. The same is true of the numerous seminars which have sprung up of late years for the other sciences represented in the faculty of philosophy, and in the theological and medical faculties as well. They all, with rare ex-

ceptions, assume as their purpose the encouragement of the work of scientific research, not of the practical application of knowledge in any form.

This is not the place to describe the individual institutions of this sort, or their mode of conducting their exercises. In general, the method followed is this: scientific investigations of limited extent are assigned to the members and conducted under the guidance of the instructor. The professor of philology, of history, of political economy, gives out a problem which the student is able to solve with the helps and authorities at command; he designates the material, and then lets the student find his own way to the solution. The essay, when handed in, is submitted to one or more of the student's colleagues for criticism and report, and finally discussed at a general meeting of the seminar under the guidance of the director, and the correct and erroneous parts pointed out. The seminars are similarly conducted in the faculties of theology and law. The exercises of seminars in natural science are, of course, somewhat differently carried

out, each piece of research being prosecuted under the direct and personal oversight of the professor or his assistant. Where it is particularly important that literary material should be used to the best advantage, there are generally readings held in common besides the written exercises. Under the direction of an instructor the text of a Latin or Greek author is interpreted, historical monuments are submitted for discussion, different authorities are compared, or some philosophical or theological writer is read and criticised with reference to his thought. Besides the real seminars, which are official institutions aided by state funds, with their own rooms and libraries, there are all sorts of private societies offering similar training, as may be seen from the program of lectures for each semester.

Repetitoria and Conversatoria

A second kind of exercise also occurs, which is more closely connected with the lectures: *Repetitoria* and *Conversatoria*, *i.e.* classes for review, or "quizzes." Their purpose would properly be to make sure of a correct concep-

tion of what has been advanced in the lectures, to solve difficulties, to answer questions, and to give practice in the application of scientific principles and conceptions. However desirable such classes might seem to be — and the Prussian Minister of Education Eichhorn urged their adoption most strongly upon the universities between 1840 and 1850 — they have, nevertheless, not reached any great extent or importance. The cause is probably this, that the necessary conditions are not fulfilled; they presuppose, if they are to amount to anything, a continuity of intercourse between teacher and student like that existing in the schools, which has and can have no counterpart at the university, at least not where lectures are so largely attended, and when the student so often changes his instructor or even his university. It is not possible to have constant association through question and answer with a large number of unknown people, who are not even acquainted among themselves. Another obstacle is the fear of ridicule to be incurred by blundering answers, a fear which shows itself even in the upper classes of the gymnasium. Under these

circumstances a *Conversatorium* would probably result in the teacher's giving supplementary lectures, caused by a succession of questions or of wrong answers, to explain his lectures proper, without his being able to discover to what extent he might be meeting a general demand. It would seem, however, that in recent times practical exercises of this and of other kinds have attained a greater importance in the faculties of law, in close connection with the lectures.

Lehrfreiheit

With the aims and objects of the German university teacher the *Lehrfreiheit*, the freedom of teaching what he believes, is indissolubly connected. If he is to be an independent scientific investigator, and to develop his pupils into such, the subject-matter of his teaching must not be prescribed for him.

The case is different in the schools; the object is there not the acquisition of new truth, but the appropriation of old. The schoolboy is not expected to judge for himself, but to accept the doctrines offered him, and therefore

the teacher imparts to him the doctrine generally received. The universities themselves began as schools in this sense, for in the Middle Ages the task set them was exclusively the transmission and acquisition of accepted truth, embodied in the canonical texts, and even in the sixteenth and seventeenth centuries the same views prevailed. It was in the eighteenth century, as shown above, that the great change came about. The logical results of the Reformation, and the results of the complete transformation in the conception of the universe brought about by cosmological and physical investigation, were accepted. Truth comes no longer as doctrine ready to hand, but is brought out by the ever-advancing labour of scientific research. The dogmas of the church and the Aristotelian philosophy lost their canonical validity together. The German universities, by planting themselves on this ground, received a new form, internally wholly different from the old. The student ceased to be a pupil in the old sense of the term, a schoolboy; and the professor at last became in fact what he already was in name — one who pro-

fesses his personal views and convictions. To be such has ever since been his right and his duty in German universities.

In general, this idea is everywhere accepted. No one reproaches a physicist or physiologist, a philologian or an historian, for advancing new doctrines not generally accepted. It is merely demanded of him that he adduce good grounds for his new theories. It is only in two quarters that attempts are still occasionally made to set boundaries to the freedom of teaching, in theology and in philosophy.

In regard to theology, it is of course ecclesiastical authorities and certain parties in the church who raise objections to the *Lehrfreiheit*. Their presumption is that the church is in possession of absolute truth, which she has formulated in dogma. The only permissible attitude toward dogma is that of devout acceptance, and doubt and criticism are forbidden. The task of a teacher in the theological faculty can therefore be only this, to instruct the servants of the church in the doctrines of the church, above all, to render them inaccessible to doubt, by showing them the worthlessness of all objec-

tions to dogma. To this end the treatment of heresy forms a valuable part of the instruction given, wherein all possible forms of error, together with the reasons for their rejection, are exhibited; and by this process the servant of the church is equipped to recognize in the errors which constantly spring up afresh only old heresies long since rejected by the church, and to root them out.

The Catholic church has completely established her claim to right of control over the teaching of doctrine. In the Catholic theological faculties only approved doctrines are taught, and the professors are servants of the church.

In the Protestant churches the case is otherwise. The teachers of Protestant theology in the universities seek to be, first of all, servants of science, but, as such, also servants of the church, inasmuch as the clergy cannot afford to be without scientific training. And so there results a continual conflict between the demands of the church and the claims of science, now latent, now breaking out in open violence. The professor takes refuge in his

right and his duty to teach what is established in his mind as the result of scientific research; the champions of the church, official and volunteer, reproach him with teaching what is contrary to the faith which the church commands us to hold, so that he should not instruct the servants of the church. The government, which, as controlling the universities, controls also the theological faculties, represents the pointer on the scales. At one time the scruples of the clerical party weigh the most, when doctrines and teachers declared to be at variance with the church are suppressed; at another, it finds freedom of teaching the more important, and then it holds a shielding arm over those who are attacked. Of late the government has, on the whole, inclined toward the latter party, which accounts for the dissatisfaction of the High-Church party with the existing status, and their demand that the church authorities receive a direct share in the control of the theological faculties.

It has been indicated above why these efforts must appear hopeless. They are opposed as well to the university spirit as to the spirit

of the Protestant churches. Since external authority does not form the basis of their creed, it cannot be the basis of their teaching. Between the confession of the church and the teaching of the faculties of theology the only possible relations are those of voluntary agreement, not those of absolute submission. In the Roman Catholic church the principle of absolutism prevails, while the Protestant church is everywhere based on that of voluntary adhesion. The former is certainly simpler, but the simpler is not always the better or the safer. Life is not a simple thing; it is the purely mechanical which has the advantage of simplicity. Absolutism as a form of government is simpler than constitutional monarchy, but it has become an impossibility, and the state rests on the voluntary agreement, which cannot be forced, of two elements. There is a similar relation between scientific theology and the Protestant church, for they were born and have grown together — often in conflict, it is true, but even as old Heraclitus remarked, "without conflict no life."

Whoever is opposed to the *Lehrfreiheit* must

in the end desire clerical seminaries and spiritual exercises — things which are entirely in keeping with the character of the Catholic church, but would signify the approaching end of the Protestant church, the former being founded on discipline, the latter, from its very beginning, based on freedom; and what has been said of states, that "they are supported by the self-same powers which gave them birth," is also true of the churches.

The other science which now and then has to defend its *Lehrfreiheit* is philosophy. It finds the same individuals arrayed against it who oppose freedom in theological teaching, and these demand that it also be limited to agreement with the doctrines of the church. In the Catholic press and at Catholic conventions it is a standing grievance that in our universities an atheistic philosophy is tolerated which makes a business of undermining the faith and corrupting the youth. The lecture-rooms of the university are styled the nurseries of revolution, of social democracy, of anarchy; and it is declared useless to combat these, so long as those real pest-spots are allowed to exist.

Even in a portion of the Protestant press these views are loudly echoed.

This is not the place to investigate the truth of such charges, whether atheistic philosophy is really taught in the German universities and whether it has the results here described. It is right, however, to assert in a few words that a philosophy under control is a nonentity and can have no effect.

Philosophy is nothing else than the attempt, renewed in every age, to express the character and the meaning of reality, as this presents itself to the human spirit which is devoted to the unbiassed contemplation of all things existing. All sciences, the physical as well as the mental, contribute their share to the recognition of reality. As they are continually bringing in new contributions, there can be no absolute and definitive philosophy, at least not until real existence has been exhausted by science. It follows that every age must renew the attempt at formulating final and comprehensive ideas on the basis of all that it has come to know, and that is its philosophy. Nothing will prevent each age from turning to good account similar

attempts of earlier ages, in form or in content. An historical development will result as a matter of course, and we are justified in expecting that each system of philosophy will exhibit a more vigorous capacity of life and fruitfulness, in proportion as it avails itself more conscientiously of the results gained by earlier thought. But one thing it cannot surrender without surrendering itself — the right of testing all the ideas of its predecessors, and of modifying them, or even of rejecting them, as it may see fit. A philosophy which should renounce this right, and be forced to recognize certain ideas as unassailable truths, forever closed to investigation, would no longer be philosophy. Philosophy means the search after truth without assumptions, *i.e.* without assumptions which cannot be doubted and put to the test.

The same considerations apply to philosophical instruction in the university. It ceases to be philosophical when it is subjected to any other control than the demands of unhampered research, and it ceases also to be fruitful under such circumstances. Instruction in philosophy can have no effect unless the student is certain

of possessing therein the free and unhindered expression of his teacher's convictions — convictions arising from his very best knowledge and conscience. We find this a matter of course for all other sciences. We should expect nothing of university instruction in mathematics or physics, in philology or history, which should be bound fast to assumptions that must not be tested, or which *must* lead to results determined in advance by outside authority. It is equally true of philosophy. The one condition of its effectiveness is the confidence of the learners that all is fair and above board. "It is something very absurd," says Kant, on one occasion, "to demand illumination of reason, and then to prescribe beforehand on which side it shall fall." Of this the student becomes at once aware. If he knows or believes that his teacher of philosophy must have certain views, or at least must not have certain others, he will not be inclined to attach much importance to the whole subject. What he wishes to hear in philosophical lectures is not officially prescribed or permitted views, but thoughts put forward as personal convictions

by a man who has given thorough and earnest consideration to the great questions of the world and of life.

It is especially an idealistic philosophy to which it is peculiarly important that no other schools of thought should be deprived of the privilege of exerting their influence. Every curtailment of their freedom would turn against it a suspicion of its sincerity, and deprive it of influence.

Concerning the substance of teaching, therefore, complete *Lehrfreiheit*, complete *libertas philosophandi*, is the necessary condition of a thriving university instruction. Interference with the liberty of the teacher begets bitterness in the hearts of those that are restrained, along with a distrust of the protected school of thought.

The limits of the *Lehrfreiheit* lie on the side of the form; and here they ought certainly to be drawn more closely than is done by the statutes. The manner of lecturing is restricted, in the first place, by considerations of respect for the place and its dignity. To treat with scorn and ridicule things which others hold in

respect cannot be forbidden to the press or to popular meetings; the academic teacher will be preserved from such action by his respect for his profession, which is to encourage the investigation of truth. He will refrain from contemptuous and disparaging treatment of the views of others which he does not approve. If they deserve such treatment, if they are utterly perverse, he will prefer to avoid them; for how can it benefit his hearers to tell them the opinions of fools, when the task of making them familiar with the ideas of wise men is so great? If he seeks to warn them against error, he must exhibit it to them in its relative strength; the absurd misleads no one. Besides, no contradiction is possible in the lecture-room, while the field of literature, of public gatherings, of parliament, is open and free, and the party attacked may defend itself there. In the lecture-room only one may speak, and it is therefore his duty, when he attacks any one, to see that his opponent also has a chance to be heard. The lecturer must, to a certain degree, comprise in his own person the defendant as well as the plaintiff, else he is not worthy to

be judge. A regard for the hearers will have the same tendency. The professor's task is not that of the orator; the orator seeks to captivate the judgment of his hearers, that they may follow him blindly, while the professor should aim at making his hearers independent of him and at leading them on to freedom of view and judgment. Only when he has accustomed himself to look at both sides of a question can he do this with success.

CHAPTER V

STUDENTS AND THE PURSUIT OF STUDY

THE years of studentship are the blossoming springtime of life. It is, above all, their golden freedom that gives them their sunny brilliancy in the memory of the mature man as well as in the anticipations of the schoolboy. For this is, in very truth, the time of the greatest and fullest freedom which comes during one's whole life. The young man leaving home and school, where his youth was hedged about with firm-set rules, becomes completely his own master at the university. He orders his outward life to his own liking, he chooses his associates and his surroundings. Nor is the disposition of his inner life less in his own power; he selects his branch of study and his teachers, he sets himself the daily tasks which he cares to accomplish, or he may, if he choose, omit to set himself any tasks whatever. His life is

one of entire freedom, and he is responsible only to himself.

In later life his liberty again suffers many restrictions. Family life brings a thousand duties and claims, while the student has only himself to care for. Professional and official life make many imperative demands; limits are imposed upon speech, even upon thought, for one's thoughts learn to submit to practical demands, they forget their free movement in the endless realms of possibility, and actuality becomes the measure of thought. Such is the realism of mature years; he who will exert influence must lay firm hold on his task, and not stray about in the wide field of possibility. On the other side is the idealism of student years. Youth measures reality by ideas, and believes enthusiastically that it can shape the world by thought. Idealism is at once the advantage and the danger of this age of life, as realism is the advantage and the danger of the "Philistines."[1]

[1] In German student-slang "Philistine" is not only the man without culture or care for the things of the spirit; the name is also applied to those who have passed through the university and gone out into the world. — Tr.

Previous Training

In all German states the statutory requirement for admission to the university with full privileges of study is the *testimonium maturitatis* [*Reifezeugnis*] of a gymnasium, and this is obtained by passing the examination [*Reifeprüfung*] which concludes the course at the gymnasiums. It is true that young men of education are sometimes matriculated without such a *testimonium*, but this takes place only in the philosophical faculty, and gives no right of admission to the state examinations, and consequently none to the learned professions. The gymnasial course extends over nine years, and may not be begun before the boy reaches his ninth year. Besides the classical gymnasiums, the *Realschulen*[1] with nine years' course now possess the right of sending their graduates to the university, but only to certain departments — viz. those of mathematics, natural science, and modern languages

[1] The *Realschule* is a preparatory school which gives chief attention to mathematics and natural science; it bears practically the same relation to the school of technology as that borne by the gymnasium to the university. — Tr.

—of the philosophical faculty, while the "higher" faculties for the present receive only graduates of the classical gymnasiums. It is questioned by many whether this exclusiveness can maintain itself permanently, and especially whether the study of medicine might not be thrown open without risk to graduates of the *Realschulen.* Perhaps we shall yet return to the principle of giving the individual more latitude in the choice of his preparatory course. A hundred years ago the university stood wide open to almost every one who possessed any kind of school-training. The requirement of graduation from an institution maintaining a nine years' course would probably suffice to keep out the entirely unsuitable element.

Age of Students and Length of Study

The years of residence at a university cover the period of transition from youth to manhood. In general it is the years between the twentieth and the twenty-fifth which are spent in university study. Down to a hundred years ago the average age of students was very considerably

younger, admission to the university being granted at a very early age; yet, on the other hand, students of a much maturer age were not rare. In fact, the extremes of age were much greater than at the present day. The cause of the regulations concerning the age, and of the later admission, lies in the more definite settling and the extension of the preparatory courses. With very few exceptions, the students now come from the gymnasium with its rigid course. Again, the lengthening of the gymnasial course is a direct result of its inner development. To the courses in ancient languages, which in the last century filled out nearly the entire curriculum, have been added courses in modern languages and in science. German and French, mathematics and natural science, history and geography, are now important subjects of instruction. The general consensus of opinion now regards the *Abiturient*, or graduate of a gymnasium, as one who has completed his preparatory studies and may turn directly to his professional work, while in the eighteenth century it was thought at least becoming to complete the general curriculum by

attendance on certain courses in the faculty of philosophy.

The length of study prescribed by law varies between three and four and a half years. In Prussia four and a half are prescribed for the study of medicine, and three for the other faculties, while in other countries, *e.g.* in Bavaria, four years are assigned to these others. The actual duration of study, however, generally surpasses the legal minimum by a good deal. In the philosophical faculty in particular the *triennium* hardly ever suffices, the average duration of attendance being over four years, to which must be added the year in which the examinations are taken. The year of military service, however, is included in this estimate.

The demand is often made, especially among the jurists, that the prescribed term of study be lengthened, and, above all, that an end be put to the delusion of regarding the year of military service as a year of study.[1] However

[1] This refers to the well-known German law which permits a young man who passes a certain examination successfully, and who agrees to pay his own expenses while "with the colours," to substitute one year of active military

desirable a further expansion of scientific study may be in itself, yet serious objections to the lengthening of the prescribed curriculum meet us on every side. Every such lengthening means an increase of cost, and consequently a narrowing of the field from which recruits are drawn. It does not by any means necessarily imply increased extent or depth of study. Many who have hitherto been able to squeeze through the examinations with the help of professional "coaches" in the last few terms, after wasting two or three years, would simply make the lengthened curriculum a pretext for tasting the joys of student life a few terms longer, and possibly one or another of those who still succeed in the end would lose the ability to "pull themselves together." The ends of study would probably be better served by the execution of a plan once proposed by H. von Sybel, by which individuals who pass

service for the two or three otherwise required. Such a person is called an *Einjährig-freiwilliger*, and is not obliged to live in barracks. Every university town in Germany now has a garrison, and a student in military uniform is a very common sight. — Tr.

good examinations should receive stipends to enable them to continue their studies.

Another proposition has been made, from a different quarter, to increase the period of study by shortening the vacations, the length of which is wont to irritate professional men outside of the university. It is true that they cover a very considerable part of the academic year — about twenty weeks, or nearly two-fifths of it. Undoubtedly, the action of the educational authorities in opposing the natural tendency to shorten still further the terms, already short, by breaking off little pieces at each end, is very commendable; yet small service is likely to be done the cause of study by any considerable shortening of the vacations. If one should regard them only as periods of recreation, it is true that they would be unduly long. But, in fact, they are not so employed — certainly not by university teachers. Many a reproach may be cast at the German professors, but laziness can certainly not be asserted of them in general. Yet the greater part of learned work which is done in Germany is undoubtedly carried on in the vacations.

Among the students as well it is natural that the vacations should not be given up entirely to recreation. It may be that many take this view of them, but probably not those who work most faithfully in term-time, who will find a good use for their vacation as well. Nor do the others suffer any great loss in the vacations. It is even possible that just this longer interruption of their studies, which tends to sober them down in a very beneficial way by reaccustoming them for a time to the thoughts and speech of mankind at large and by imposing some restraint upon them, may be most wholesome for this or that one. But to him who has been diligent during the semester the longer vacations bring, besides welcome recreation and opportunity for extended travel, the desired time for quiet, continuous work. It is true that the case is not equally favourable for all. He is best off whose work is done essentially with books — the theologian, the jurist, the philologian. It is harder for the student of medicine or of natural science to work, for he has not the "institutes"[1] at his

[1] *i.e.* the cabinets, laboratories, clinics, etc. — TR.

disposal; but even he will find no detriment in devoting several weeks to continuous reading.

The older medical students also find additional opportunities in the vacation-courses. Perhaps similar arrangements might be made for other branches of scientific research; the chemical laboratories, for instance, which are often overcrowded in term-time, might be opened for vacation-courses under the direction of assistants. It is certain that many an older student, and perhaps many an active practitioner who has neither equipment nor means for more difficult researches, would be glad to avail himself of such an opportunity.

Mode of Life

It was said above that in the present century the last relics of the old scholastic regulations and discipline have been abandoned. Nothing remains in Germany that is comparable to the mediæval *Bursæ*, or to the English colleges.[1] The student hires his

[1] The author has apparently overlooked the *Stift* and the *Konvikt* at Tübingen, which are like the English colleges in some points, and in some like the American "dormitories." — Tr.

rooms wherever he finds them to his liking; in large cities he has generally to be content with a single room, while in a small university town he has, as a rule, a small bedroom besides his study. In the large cities rooms are let by the month, in the smaller towns, the term. His meals are taken at a restaurant. His participation in family-life is in general scanty, and many a student who has no relatives in the town and has brought no letters of introduction may spend years at the university without being received in a single family.

There is no doubt that many suffer in this way a great loss of comfort and see little or nothing of the customs of refined society. Above all, the lodgings are not seldom most undesirable and forbidding; their uncleanliness and noise, and disturbances of all kinds, make quiet study an impossibility, and imperil health and decency of living. An Oxford college is certainly a more favourable spot for study than a mean lodging in some crowded tenement on the outskirts of a German town. We cannot hope to have English colleges, which are equipped with the possessions and

traditions of centuries. But we might have halls for our students modestly fitted up, which should assure to them, either with or without community of life, but without increase of cost, a comfortable and quiet dwelling-place. These would have the further advantage of offering the chance of social intercourse and work in common, whereas, under present conditions of scattered life, many suffer keenly from loneliness.

Yet one might well hesitate to believe that any considerable inclination towards such institutions prevails among our students. Where there are such, *e.g.* the Melanchthon House in Berlin, the demand for places is not so very great. The cause is evidently this, that absolute freedom of life is more highly prized than all the advantages which such a house could offer. The subjection to house-rules, no matter how liberal, and even though their administration be in the hands of the house-members themselves, is felt as a curtailment of personal freedom, or even as a *capitis deminutio*, of which one is ashamed in the presence of his fellow-students. The feeling is closely akin to the

attitude of dislike and fear so commonly assumed in Germany toward everything that partakes of control by church or school. And another difficulty is certainly the frequent change from university to university. Such arrangements imply for their complete adoption the permanence of stay seen in English and American universities.

Expenses of Students

I may add a word concerning the expenses of students. The annual expenditure of the great majority of German students, not reckoning the vacations (four to five months), amounts to between 1000 and 2000 marks [or $250 and $500]; the average probably falls between 1200 and 1500 marks. A small number exceed this amount by considerable; a greater number probably do not reach the lower figure, and find assistance from stipends, *Stundung*,[1] remission of fees, or earn money by tutoring, editorial work, stenography, and the

[1] Remission of fees for certain courses, the student engaging to pay them after obtaining regular employment, under the state or otherwise. — Tr.

like. The stipends are given both from public funds and from private foundations, the latter chiefly of ancient establishment, and existing especially in the older universities. The income from these, owing to the decreased purchasing power of money, is frequently quite insignificant. The public stipends are chiefly relics of a time when, owing to the small attendance, the maintenance of some students at the universities who should be trained for the public service was looked upon as a necessary part of public policy; and it was with this purpose that the *convictus* of the sixteenth century were established. Since, however, the general increase of wealth and of the esteem in which the learned professions are held, the number of candidates often greatly exceeds the demand, these ancient foundations have largely lost their former importance.

Change of University

The change from one university to another just alluded to is in Germany an old custom, deeply rooted in the Germanic migratory spirit. The number of those who spend their entire

time of study at their home university is not very great, the majority attending at least a second, and many a third or fourth university. Although this custom may be carried too far — and that is the case when it is followed to such an extent that the student never becomes quite at home anywhere, and fritters away his time in mere change and in getting accustomed to new surroundings — yet in general the advantage is not to be estimated at too low a figure. Above all things the intercourse between North and South is of great importance. As Conrad shows, about two thousand North Germans attend South German universities, while the South is less eager to visit the North. The gain in learning is, of course, not equally great in all cases, but the gain in the matter of general culture must be reckoned as very great. There is no time of life when a man is likely to expose his senses and character more freely to the impressions of the world; and he who has had his eyes opened in foreign lands to strange ways will look with a calmer and clearer judgment upon the customs of his own country.

Furthermore, such change is most beneficial for the scientific development of the individual. Here, too, travel and residence abroad sharpen one's sight and broaden one's ideas. In particular, large and small universities have each their peculiar advantages. It is easier to become at home in smaller universities, and to enter into personal relations with the instructors. To compensate for this, the great universities give opportunities of listening to the most eminent and famous men in all subjects, and besides are more richly provided with educational advantages of every kind.

Societies, Clubs, etc.

The students' societies form an important characteristic of the German universities, as the colleges do for those of England and America.[1] They play a similar part in the life of the individual; they form the immediate

[1] It would have been more exact to say only: "for those of England." The position occupied by the societies at many American colleges and universities corresponds closely to that of the German *Vereine*, while the relation between college and university existing in England is unknown in America. — Tr.

surroundings of his daily life, determine his social intercourse, and shape in no small degree his views and habits.

It is not within my purpose to give here a complete description of the far-reaching system of German student societies, with its many ramifications, but I may indicate the main outlines. Among the great number of such associations a separate and well-defined group is formed by the "colour-wearing" societies. Of these, again, there are three chief kinds, *Corps*, *Burschenschaften*, and Christian Associations, of and between which there are all sorts of sub-varieties. The *Corps* are mostly connected historically with the old "national associations," *Landsmannschaften*, as indeed they are generally named after German provinces and tribes. At every German university there exists a greater or smaller number of *Corps*, and all together form a great association which includes all the German universities. This group, which is recruited entirely from the wealthy and aristocratic classes, is characterized by the importance attached by them to the externals of manners and expenditure, and

consequently by a strong tendency to an aristocratic aloofness from the great mass of the students, besides which they claim for themselves, as the *élite* of the student-body, the right of representing it on public occasions. The *Burschenschaften*[1] date their organization from the time of the War of Liberation [1813–15]. Originating as organizations of the students at large, in opposition to the *Corps*, they were at first not intended to be exclusive societies in the narrower sense, but promised to throw off the narrow-mindedness of the societies under the older system, and to awake in the whole body of German students a new conception of their position and their duties in the life of the nation, and to fill them with love for people and country, with enthusiasm for its unity, power, and freedom. The repressive measures of the old "police-states" gave them a different direction. Persecuted and suppressed, they assumed temporarily, at one time and another, the form of secret societies.

[1] The word *Burschenschaft* means merely "body of students," *Bursch* being a familiar equivalent of the more formal *Student*. See above, p. 25. — Tr.

Yet, in no unimportant degree, they helped to make the conception of German unity a living force among the people. At the present day the *Burschenschaften*, of which several are often to be found at one and the same university, are exclusive societies like the *Corps*, from which many of them are hardly to be distinguished in tendency or in external form, while others, especially those older and larger ones which are more deeply rooted in the past, have succeeded in preserving somewhat more of the spirit and aims of the old *Burschenschaft*. Since about 1835–40 we find as a third group the Christian Associations, many of which bear the same name *Wingolf*.[1] While resembling the other colour-wearing societies in constitution and appearance, they are distinguished from them in the important point that they reject the custom of duelling. Nor is this other difference unimportant, that, in fact, their members are almost exclusively students of theology, while the other societies

[1] An ode of Klopstock's is said to have suggested the name; *vingolf* in Old Norse means "Hall of Friendship." — Tr.

disregard distinctions of faculty, although the *Corps* are recruited mostly from the faculty of law, and to the next degree from the faculty of medicine. It is likely that in the *Burschenschaften* is to be found the greatest number of representatives of different faculties, just as these societies make the least of social distinctions. In recent times Catholic societies have been formed in many universities, with tendencies and an exclusiveness resembling those of the *Wingolf*.

Besides these older societies, other associations [*Vereine*] or clubs have of late years become prominent, particularly at the larger universities. These are less formal and strict associations, whether for the practice of some art like singing or fencing, or for mutual improvement in scientific training, or finally to cultivate some particular idea or to follow some practical purpose. They differ from the older societies chiefly in this, that their purpose is more specific, their fellowship less close and exclusive. Such societies as the *Corps* and *Burschenschaften* aim at complete community of life, and this not merely for the

time of residence at the university; for the old members often keep up intimate relations with their society and with all who have ever belonged to it.

The colour-wearing and fighting society-students feel themselves to be the true representatives of German students in general, and are probably regarded as such even more in foreign countries than in Germany itself, although numerically they represent but a small fraction of the student body, hardly so much as a twentieth. At the large universities they disappear in the multitude, and it is only at some of the smaller, or of those of medium size, that they compose a more considerable part of the whole number.

The judgments passed upon the significance and value of societies of this kind are very various. Not seldom loud and severe condemnations are heard in public; they are all, and especially the *Corps*, reproached with complete neglect of study, crude overestimation of mere externals, supercilious contempt of the other students. And, in fact, the dangers should not be underestimated. The waste of time and

strength in mere trivialities of all kinds, neglect and even contempt of study, a narrowing of sympathy for things human — to the production of all these results there is a certain tendency in the very nature of all such societies, which works most strongly in societies whose membership is very small. And yet a general condemnation of them would be overhasty. We must not forget that there is plenty of opportunity for dissipation outside of these societies. If we had statistics of such matters, it might be found that this circle in general had no greater share in it, perhaps even a smaller share, than is to be expected in proportion to its numbers. Some societies make a point of demanding that each and every member shall complete his studies creditably, even though it may be only for the sake of the society's reputation among outsiders. Furthermore, a life-gain not to be despised is often derived from membership in a society in which no really evil tendency prevails and whose numbers are not too small. The gain is chiefly this: the society is a free and self-governing corporation, whose members learn day by day,

in a small circle, the great art of governing themselves as well as others. We may truly say that there are no laws in the world which are more scrupulously obeyed and more strictly upheld than the laws which such a students' society imposes on itself. They learn no less to deport themselves becomingly with enemy and with friend outside their own circle, for every transgression finds keen observers and severe judges. There is thus acquired a certain confidence of bearing and demeanour by which one may often recognize the old society-student in after life. It would be quite impossible to comprehend the joy and devotion with which so many old members think of their society if they had not something for which to be grateful to it; and still less comprehensible that they should enter their sons in the same society, for fathers are surely wont to desire other things for their sons than mere pleasure and vanity, idleness, and a scarred face.

To many the retention of the duel, or of the *Mensur*, is a particular stumbling-block. There is no occasion to treat here of the duel in general, but a word concerning the students' *Men-*

sur may not be out of place. I will not justify the custom, much less defend the vagaries to which it so readily gives rise. A quarrelsome and swaggering disposition is certainly not calculated to make its owner beloved of God or man, and a frivolous playing with one's own or another's life is beneath contempt. There is, however, another side to the question. Without the *Mensur*[1] the exercise in the use of weapons would lose its exciting attractiveness, and the *Corps*, etc., would lose a great part of the discipline which they practise. The *Mensur* is in certain ways, without doubt, a test of courage, or, as some might prefer to say, of "nerve"; and the custom certainly tends to secure to the individual in his own circle an esteem independent of the size of his bank account. J. M. Hart, in his book on the German universities,[2] which is replete with sound sense and close observation, says: "Duelling, it must be admitted, is an evil.

[1] The *Mensur* is not strictly a duel, but rather a fencing-match between representatives of different *Corps* or *Burschenschaften*. — Tr.

[2] *The German Universities*, New York, 1874

But there are others equally great and much meaner" — and he points to various practices usual in American colleges. The German system has at least the advantage of being manly; "it holds the student to the strictest accountability for all that he does and says."

The Pursuit of Study

The object of study at the university is the ability to think scientifically; that is to say, the ability to comprehend and test scientific researches, and to conduct them; and in the second place, to solve practical problems on the basis of scientific knowledge.

This is the view of the problem taken by the German university. The student is not merely to *learn*, *i.e.* to accept in good faith the details of knowledge, but rather to be led on to independent thought and research. Of course learning, the reception of material, is indispensable. But whoever should rest content with this would not satisfy the German conception of the student. However diligently he should attend his lectures from the very first term on, and review them and study his text-

books, and however brilliant the examination which he should finally pass with his treasures of knowledge thus acquired, we should have to say that he lacks something — nay, more, that he lacks the important thing of all, the trial of his strength in independent research. This point has been excellently emphasized by H. von Sybel. It is not demanded of one that he learn the whole extent of science from the ultimate sources, which would be impossible. "But *this* is important: that the student gain a clear conception of the problems of science and of the processes by which she solves them; *this* is necessary: that he himself conduct these processes at some points, or at least at some one; that he follow out some problems to their remotest results — to a point where he may say to himself that there is now nobody in the whole world who can instruct him further on this matter, that here he stands firmly and surely on his own feet and decides according to his own judgment. Such a consciousness of independence gained with one's own powers is a possession of inestimable value. It is almost a matter of indifference what subject is

concerned by the investigations which have brought one to this point; it is enough that they have broken down his dependence upon the school at some point, be it never so small; that they have tested the strength and the resources with whose aid every new problem may hereafter be grasped and brought to a similar solution; and that they have ripened the stripling, in the midst of his youth, into a man."

Such is the ideal. Not all reach it, and it is not everywhere equally easy to reach. For a long time it was perhaps most fully vouchsafed to philological science to lead on its students to such independence, whereas nowadays the experimental sciences are no longer inferior to it in this respect, perhaps even surpass it. The goal is perhaps most difficult to reach in jurisprudence. There may be some connection between this difficulty and the fact that complaints of the lack of enthusiastic and independent study are most frequently heard in the faculty of law — just the one wherein the task of actual committing to memory is most burdensome.

Lernfreiheit

Freedom for the learner, *Lernfreiheit*, is the corollary of freedom for the teacher. As the latter is implied in the assumption that the academic teacher is an independent investigator, so the former is implied in the demand that the student be led on to independence of thought. And, like the *Lehrfreiheit*, the *Lernfreiheit* in German universities is to-day as good as unlimited. The student selects for himself his instructors and course of study as well as his university and profession; what lectures he shall attend, in what exercises he shall take part, depends entirely on his will; there is no exertion of official influence, hardly so much as advice is given him; and he is at liberty to choose to attend no lectures and to do no work.[1]

The fact that a portion — not particularly small — of the students decides for the last-named course has again and again suggested to anxious governments and to worried parents

[1] In some universities he must at least enter his name for a certain minimum number of lectures per week. — Tr.

the question whether it be not advisable to limit the *Lernfreiheit* somewhat more closely; and then the same old ways of increasing devotion to study crop up again, a prescribed curriculum with term-examinations or at least an intermediate examination, or even records of attendance with inspections and certificates of diligence.

Whoever understands youth, and knows the circumstances of German universities, will not doubt that all attempts to help along devotion to study by more or less mild expedients would be vain and harmful: vain, because only the semblance of such devotion, not the thing itself, can be forced; and harmful, because they weaken the sense of independence and responsibility.

Forced study implies a scholastic system and scholastic relations between teacher and pupil, of the sort which existed in the mediæval universities. Such a condition is to-day inconceivable in the German universities, from their historical development if for no other reason. It is also inconceivable by reason of the age of our students; one would seek in vain the

instructor who could rule men from twenty to twenty-five years of age like schoolboys, with the forms and resources of school discipline. Yet without some such system all other measures are quite useless. Leaving records of attendance and the like out of the question, intermediate examinations would by no means prove a reliable method even of forcing mere study, and how much less of ensuring really scientific work! We could at best thus force the students to some amount of memorizing of lecture-notes, or of such catechisms as would then spring up, for every examination calls forth devices well calculated to assist one in taking the obstacles.

Over against this scanty positive gain we should have to set the most serious negative results. In the first place, the relations between student and instructor would be disturbed. At present these relations are throughout most satisfactory, resting as they do on a basis of freedom and mutual confidence, and every attempt to increase attendance on lectures by any other means than the attractiveness of the lectures would necessarily impair

their charm. Who could endure to face a circle of hearers to whom he could not say at all times: "Whoever thinks he does not find here what he wants, is under no compulsion to come"? Again, the student's attitude towards Science herself would be altered. She, free herself, must be sought and loved by free men; if forced upon us, she would be detested by all — not only by those whose nature keeps them from intimacy with her, but by those also who now follow her of their own inclination.

He who is not convinced of this from his knowledge of human nature may learn it from the experience of such measures gained everywhere and always. To cite experiences of recent date, it is instructive to read what one writes who is well acquainted with Russian affairs.[1] In these universities there now exist official courses for each year, with obligatory attendance, at the close of which examinations are held and reports issued. And what is the result? "The complaint is everywhere made that the lecture-rooms begin to be empty by the

[1] *Reform der russischen Universitäten durch Gesetz vom Jahre* 1884; Leipsic, 1886

middle of November. It is well enough if some increase of attendance is to be noticed between New Year's and the end of February; but then, with the beginning of work for the examinations, there is no time at all remaining for attendance at lectures." An important part is played in this whole business by the lithographed lecture-notes, which are purchased at a high price, and enjoy official recognition. The professor looks over the students' notes (sometimes taken down in shorthand) of his own lectures, with a view to basing his questions thereon at the examination (p. 99 f.). Very unedifying accounts are given in the same work of the way in which the examinations are conducted. The observations made by F. Nicolai one hundred years ago, at the University of Vienna, where similar customs then prevailed, may be read in his *Reisebeschreibung.*[1] He found about two hundred students in the philosophical lecture-room. The lecture was good, being interesting and clear, but the students acted like

[1] *Beschreibung einer Reise durch Deutschland und die Schweiz*, 12 vols., Berlin, 1783–96. Vol. IV., p. 57 ff.

schoolboys. "Some lay about on the benches, some conversed, some stared about them like children, some nodded. All this was allowed; but that these prospective devotees of wisdom might not become so noisy as to disturb the professor, an older student, who was called *fiscus philosophiæ*, and sat in a special seat near the platform, rose in his place when the noise became too great, and reminded the offenders of the respect which they owed to their teacher." I may also allude to the comparisons drawn by J. M. Hart[1] between the relations of the German professor with his "hearers" and those of the American professor with his students. "The chief drawback to the lot of a professor in America, namely, police duty and discipline, does not exist in Germany." The German professor "lectures only to those who are willing and able to hear. His relation to his hearers is that of one gentleman speaking to another. He is not in perpetual dread of hearing himself nicknamed, of seeing his features caricatured; his domestic repose is not disturbed by midnight serenades." All these

[1] *German Universities*, p. 264 ff.

things would certainly be found among us in Germany as well, if we should introduce into our universities the causes which have produced them there : school discipline and police-like supervision.

But even though these results should be absent, if we succeeded in turning all our students into docile scholars diligently learning their tasks, this very success would nevertheless be so far from satisfying the ideal of the German university that it would, on the contrary, mean the complete destruction of it. To develop youth into men of independence, of independence in thought and purpose, and fully conscious of their own responsibility — that is the real purpose of the German university, as it has gradually shaped itself during nearly two centuries. Only in the midst of freedom, however, can one learn what use to make of freedom, how to commune with oneself and govern oneself. True, it is a dangerous school, but there is no other. One may go astray, and many do so; nay, most men go astray for a longer or shorter time, until they discover what is right and suited to them. But no one who

has not strayed at his own risk, and found again the right way by his own efforts, has gained any experience of great importance. He who has kept to the highway in his pilgrimage through a country has not seen much of it; it is by detours and false paths that we learn to know a country, for they compel us to pay keen attention, to look about us on all sides, and to observe all landmarks in order to find our way. So it is in the sciences. Whoever has always kept to the highway of prescribed school exercises and of acknowledged truth, without the courage to turn aside and to wander, has not seen very much in the land of truth. And long wandering means long remaining young; he alone ceases to stray whose course is run. Again, he is a better helper and guide to others that have gone astray, who knows of his own experience what it is to stray, to seek and to find. Even voluntary aberrations bring a certain satisfaction and profit to him who regains the road by his own efforts. The man matures amid the battles in which his will, fighting against his inclinations, gains freedom and the mastery. Rousseau's words

are as true here as elsewhere: "We must risk boys if we would gain men."

On this ground the German university is established. This, too, is the man's debt to it. It has not led him by the hand like a schoolboy, and preserved him from error of all kinds, but has allowed him to seek his own way. But it has also awakened in him the powers which enabled him to do this and to become self-reliant. It was not the work of his teachers alone — he may well be content if one or another of them has succeeded in throwing some light on his path — but of the whole university with its organization and institutions, with its traditions and its band of students, all of which thus exhorted him: Here is the place to exert thine own will; thou art from henceforth a man, and must answer for thyself!

I will again quote von Sybel, who says: "We cannot estimate highly enough the advantage accruing from the tendency of our universities, in their innermost nature, toward the complete emancipation of a man's spirit. In the preliminary school authority rules the entire man, as it must of necessity do; and

later, the practice of a profession, and with it authority again, claims considerable portions of our life. But every cultured man on German soil must and shall have at least one period in his life when the organs of authority, when even nation, state, and teacher demand of him, as the highest of all commandments, that he shall be spiritually free."

As we stand here at the very source and centre of the character of the German university, the words of yet another classic witness will be here in place. Schleiermacher[1] says that the real purpose of a university is not learning, but "the awakening of a new life in the youth, of a really scientific spirit if this be possible. Now this is not produced by compulsion; the attempt can only be made in the atmosphere of complete mental freedom, not only in general, but especially among and with Germans. As it is only through faith and love, and only when found susceptible of both, that men can be brought under the law of faith and love, not through any power or through the exercise of an out-

[1] *Gelegentliche Gedanken*, p. 110

ward restraint, so also they can attain to knowledge, and to the insight which frees them from subjection to all mere authority, only when we work upon them by their understanding, using no other means. And in particular we Germans, we who are sworn servants not only of freedom but of every one's own personal peculiarity, and who have never held in honour any universal scheme and form of knowledge and faith, or any one infallible way for all to attain them — how can we help assuming that the higher spirit of this insight breaks forth in every one in a peculiar way? How can we help assuming and showing by our institutions that this process cannot be carried on in any mechanical way, but must display the character of freedom in all its parts? Therefore we cannot but treat with the utmost respect all that belongs to it."

Facilities for Study, and the Use made of Them

We have treated above of the form and the meaning of the instruction offered by the university. The task which confronts the

student will now be the reasonable use of these opportunities. In the earlier terms he will have principally to seek introduction, by means of some wisely chosen courses of lectures, to the fields in which he is to work. Ancient custom suggests to him that he write down what he hears. If this be done intelligently, it certainly forms an exercise not to be despised. It compels thoughtful attention, and the recasting in new and conciser form of the important parts of the discourse. Gneist[1] calls attention to the fact that the jurist finds therein an excellent preliminary training for his future duties of following *viva voce* legal processes, and of enabling himself, by jotting down certain important details, to recall to mind the whole process in regular order. Similar tasks meet not only the lawyer, for with the wider participation in public life, speech and oral transactions are everywhere assuming a greater importance by the side of reading and writing. Thus it is that taking notes, if it be not merely manual labour, into which the art of stenography is apt to betray us, has a value

[1] *Aphorismen zur Reform des Rechtsstudiums*, 1887

of its own. It depends on the lectures themselves whether the notes will be of service for review and study in private.

In later semesters participation in the various exercises will be added to attendance at lectures. In these the object is to learn the method of investigation or the proper treatment of the problems concerned. It may be assumed that nowadays, at least in the faculty of philosophy, all the more faithful and diligent students participate, in one way or another, in the exercises for which so abundant opportunities are offered, whether as members of public seminars or in private societies or courses. In fact, the more active occupation here demanded forms a necessary supplement to the more receptive mental processes concerned in hearing lectures. The perpetuation of scientific methods of work is nowadays principally achieved by these institutions. By them, also, the personal acquaintance of the instructor with his students is brought about; wherever a really intimate relation has grown up between them, its roots will generally be found in the seminar, for it is here that the student receives individ-

ual and personal impulse, and here that the instructor sees the talents growing which shall continue his own work.

Another important adjunct to university instruction is the student's private reading. During the years of his studentship he must make acquaintance, by his own careful study, with at least some of the most important writers on the main branches of his chosen science. When one has gained a general survey of the subject from lectures, the use of a text-book is to be recommended for working it up, to regulate one's conception of the subject and to complete necessary details. Larger works of reference may also be occasionally consulted, even a superficial acquaintance with which is of advantage, since in after life most men in out-of-the-way places find them difficult to procure. It will next be important to acquaint oneself with the history, at least in its outlines, of his particular science. The lectures, which have regard rather to the systematic side of the subject, will generally require supplementing on the more purely literary side, especially in the various branches of natural

science. But a study of the history of any science will become really fruitful only when it leads one to a personal knowledge of some of the works of greatest historical importance, of some of the classic researches, through one's own careful study of them, not merely from the accounts of others. When literary monuments form the chief material to be investigated, that is to say in philological and historical science, there follows inevitably the task of becoming acquainted with these to a very considerable extent, through private study. The theologian or philologian finds an important part of his work to consist in reading the writings which form the chief object of his science, and the more completely he assimilates this real substance of knowledge, the freer and surer he will be. He who knows this real subject-matter will easily acquire a knowledge of what deals with it, of manuscripts and editions, of *quæstiones* and commentaries, as far as may be necessary or convenient.

To private reading in one's especial field must be added, as opportunity and inclination may allow, reading both in neighbouring fields

and over the whole range of human knowledge. Here it is more particularly philosophy which will make good its claim to attention. As in the old saying, all roads lead to Rome, so in science all roads lead to philosophy. All investigation ends in those most general problems, the solution of which has from time out of mind been regarded as the task of philosophy.

Concerning the manner of reading, the oft-given advice, to read pen in hand, is still best worth following. By jotting down the train of thought and excerpting the most important points, our attention is held and the matter more easily impressed on our memory. For subsequent recollection a few pages of notes which one has taken at the first reading are more valuable than a detailed and exact account by another's hand. Reading is most fruitful when pursued from some definite points of view, whether historical or concerning the subject-matter more directly, as the advantage gained will naturally gather about these points.

It is to be noticed that in quite recent times a very great deal has been done at German

universities to render the literary material accessible, and very much for which we have to be thankful. The university libraries have met the needs of the students by establishing well-stocked reference libraries in the reading-rooms, for almost unrestricted use, so that the most important manuals and works of reference are continually accessible without trouble to the student. Besides this the seminars possess libraries, often richly equipped, which enable the members either to consult the books at the library or to take them out. It is to be hoped that this abundant provision of literary works at the expense of the university may not have the effect of increasing still further the traditional economy of German students in the purchase of books for their own use. A small working library of one's own is certainly an indispensable possession for every one who attempts scientific work.

Finally, the advantages of working in common deserve a word of notice. This may be done in two ways: either where individuals join in purely private work, or where the "scientific clubs" provide for a regular organiza-

tion of the work. Both forms may be extremely fruitful. When two or three individuals who harmonize meet for common reading or study, the work goes on twice as merrily. To regard the subject from more than one point of view, to find opportunity of expressing our opinions or judgments at once, increases our interest, facilitates our conception, and deepens our understanding of what we read. The "scientific clubs" which have of late arisen in great numbers are of very considerable importance, for this among other reasons, that they bring together men of similar aims and promote acquaintance among them. In the better and more permanent of such clubs there may be developed a sort of tradition which receives the newcomer in a friendly and helpful spirit, leading him into the right way and encouraging him to higher efforts. The opportunities of submitting to the circle of one's colleagues small pieces of research, essays, reports, or communications, and of criticising such, forms a valuable supplement to the exercises of the seminar.

Examinations

Everywhere in Germany there now exist two kinds of examinations, academical and state examinations. The former are held by the separate faculties, and lead to the ancient academic degrees. The state examinations are conducted by official examiners who are appointed — generally for the term of one year — by the government, and controlled by official regulations for the conduct of the examinations. The passing of the state examination forms in all the states of Germany the indispensable condition of admission to the practice of a profession. The academic examinations have nowadays no practical value except for the professorial career, the possession of the appropriate degree being requisite for admission into any one of the faculties as *Privatdocent.* Otherwise these degrees are nothing more than a recommendation or an ornament.

The universal adoption of the system of state examinations is the work of the nineteenth century. In the eighteenth century hardly

more than the beginnings of the system are to be found. For the medical profession the academic examinations and degree were prescribed. Admission to active employment in the civil service was generally obtained in the following way: the candidate, on the strength of academic testimonials, whether official certificates from the faculty that he had received a degree or had at least attended a university, or the personal certificate of some prominent teacher, was first admitted to preliminary employment in some governmental bureau or court of justice as an assistant.[1] If he showed himself capable, and performed whatever additional duties might be assigned him as a test by the chief of the bureau, he received a regular appointment in the civil service. For positions in the church actual examinations are of more ancient date; they were established and conducted by the ecclesiastical authorities. For admission to the profession of teaching, special pedagogical examinations, having no connection with the theological examinations,

[1] *Auscultator;* since 1869 the Prussian term has been *Referendar.* — Tr.

were not finally established until the nineteenth century — in Prussia in 1810.

Between the development of this system of state examinations and the general development of the country, there is the closest historical connection. The regeneration of the German state which was accomplished in the early part of this century after the conflict with the France of the revolutionary period brought with it an entirely new organization of the public service. The old system which recognized hereditary claims to the best places in the civil service or the army was abolished; instead of the apportionment of offices according to the judgment or favour of those highest in authority or of private patrons was adopted the new principle of selection from among the candidates by examination, and of promotion by seniority.

The adoption of this system has brought about a twofold gain: first, it gives to the state a certain degree of assurance that the offices will not fall into the hands of candidates unqualified to fill them; and secondly, it gives the candidate who has prepared himself for the office

and enters upon it with proofs of his competence a certain degree of assurance that nobody without merit will be preferred to him through personal favour alone.

This is the real importance of the state examinations. Whoever prefers such a system as ours to that of patronage and privilege, must also desire the examinations, however little of an infallible test they may be of a candidate's qualifications and merits, and however great the disagreeable experiences which they may imply in other respects for both the examiners and the examined. Above all, the freedom of scientific study is made to suffer thereby. Every examination which is not conducted as a purely pedagogical exercise between teacher and pupil, every state examination which aims at testing, by examiners to whom the candidates are unknown, the mental equipment of those candidates, leads of necessity to the memorizing of text-books and to "cramming," whether with or without assistance. It is a matter of course that such an examination should concern itself more with externals, and with points on which questions may be readily

formulated, than with more internal and important matters. The real mental results of scientific study are appreciated least of all in such an examination, as has been shown by Latham in an excellent book, full of acute observation.[1] This appears most plainly when the examination is conducted entirely or chiefly by men who have no share in instruction. While such was the case in legal examinations in Prussia until recently, of late the university professors have regained a more satisfactory representation on the Examining Boards.

[1] *On the Action of Examination, Considered as a Means of Selection.* London, 1877

CHAPTER VI

THE UNITY OF THE UNIVERSITY

It is to-day the universal conviction that the preservation of the unity of our universities has been a happy dispensation in our history. These concluding words shall be devoted to an indication of the benefit accruing therefrom to our science and our life.

The most conspicuous advantage is this: that the unified university is far superior in importance and dignity to the isolated faculties. This has been felt in France, where the faculties are separated. No one except those immediately concerned knows much about an isolated faculty of law or medicine. On the other hand even smaller universities, like Jena, Kiel, or Erlangen, are by no means unknown in foreign countries. It is in one place the theological faculty, in another the medical or philosophical, which gives a brilliant name to the whole institution. The fact is not with-

out its importance for the mental attitude of the various parts of the university as well; as professor in the University of Erlangen or of Jena a scholar is known and received everywhere, while he might lose all prominence as member of some obscure and isolated faculty. For the student, too, the word "university" has a very different sound. The circumstance that Paris has been able to gain such a great preponderance as to comprise a full half of all the students in France is undoubtedly connected with the fact that in the provinces no complete universities exist — or rather, existed, since for this very reason a beginning has been made of combining the various professional schools into homogeneous universities.

Another consideration affects the inner side of the subject under discussion. The unified university, by its very organization, holds constantly before the eyes of all its members the unity of science. By continually impelling each and every one to seek assistance and supplementation from others, it subjects the representatives of the various sciences to the greatest mutual influence. The professors meet

daily within and without the university. The theologian associates with the philosopher, the philologian, the historian, the student of nature; these sciences appear to him, as it were, in personal form, so that he cannot pass them by without notice; he is forced to settle his mental accounts with them. This has, undoubtedly, had the greatest influence on the character of Protestant theology, whose principal tendency is to bring religion and science to an inward reconciliation, as it is in particular the task of dogmatic theology to bridge the chasm between the scientific consciousness and the religious needs of every age. Roman Catholic theology originates in the seminary, and at the university it lives apart. This gives it, it is true, greater uniformity of teaching, but also decreases its power of influencing the science and culture of the age. As Protestant theology is affected by all branches of science, it in turn affects them all. One need only call to mind men like Schleiermacher, Baur, and Hase. It is by no means an insignificant fact for the German universities that most of them include a faculty of Protestant

theology.[1] Such an estrangement between scientific thought and religion as is often found in Catholic countries — whose universities possess no faculties of theology — is hardly possible in the Protestant world. Let one but compare the French *Aufklärung* with the German; the former is irreligious, the latter essentially a religious movement. Both Wolff and Kant were in a sense reformers of theology, and Fichte, Schelling, and Hegel avowed this purpose directly.

We should find a similar state of affairs in the other sciences. The philosopher meets daily investigators in natural science or in history, and their influence is reciprocal. He receives constant impulses from them to bring his thoughts into connection with concrete reality. The whole recent development of philosophy in Germany rests on this basis. On the other hand, he calls forth and strengthens in these investigators the tendency to seek

[1] There are seventeen such faculties in Germany, and eight of Roman Catholic theology (including Braunsberg); three universities — Bonn, Breslau, and Tübingen — have both faculties of theology. — Tr.

general and ultimate truths. The inclination of all German science toward philosophy is without doubt to be explained partly by the fact of constant personal intercourse with philosophers and theologians. In like manner the jurist is brought into daily contact with the historian and the political economist, the professor of medicine with the professor of physics, of chemistry, of biology, and the mere presence of the other acts as a summons to look beyond the limits of one's own specialty and seek new relations. The friendship which united von Savigny and Jacob Grimm, the founder of the historical school of legal study and the founder of Germanic philology, may be taken as a symbol of the unity of legal and historical investigation in Germany. The same unity exists between medicine and natural science.

Mention must also be made of the frequency with which transfers are made from one branch of science to another; indeed, it not rarely occurs that the limits dividing faculty from faculty are overstepped. The philosopher Lotze was a student and then a lecturer in the faculty of medicine at Leipsic, before he was

called to Göttingen as professor of philosophy; Wundt also began with the study of medicine; Fechner was professor of physics to the end of his life; Helmholtz, the physicist and physiologist, completed his medical studies and was an army-surgeon before becoming professor of physiology and subsequently of physics; the historian Mommsen was originally a jurist and professor of law before he was made professor of history; Zeller, the historian of philosophy, was at first a theologian and for many years professor of theology before entering the faculty of philosophy. And, what is more, all these men began to assume their double position during their years of study at the university.

This brings us to yet another consideration. The intimate relations between the faculties are not less highly important for the students than for the instructors. It is true that the university does not possess a unity like that of the school; it is rather a federation of independent universities, whose courses in the main run parallel. Yet it is extremely common to find the boundaries between the faculties dis-

regarded. Probably very few German students leave a university without having heard some courses of lectures, or at least visited them now and then, outside of their own faculty. Above all the faculty of philosophy appears as the general faculty. In the lecture-rooms of the professors of philosophy, of history, of natural science, of political economy, all faculties are constantly represented. The strongest contingent is furnished by the theologians, among whom the yearning for culture is perhaps most nearly universal. The students of medicine and of jurisprudence are less often seen there, yet even among them those who entirely ignore lectures in the philosophical faculty form rather the exception. The opposite case is not infrequent, members of the philosophical faculty "hearing" under other faculties according to their lines of work and their inclination, the historian attending lectures on law or on church history, the student of natural science medical lectures, and so on. It is certain that the change from one faculty to another, so common among our students, is thereby facilitated. The unity of the university makes possible the

timely recognition and correction of mistakes in the choice of studies and of a profession, by inviting the survey of other fields as well.

Nor is the intercourse of the students among themselves in daily life and in the "scientific clubs" of less importance. There is probably no student who has not more or less intimate associations with students of other faculties. In this respect also the societies exert an important influence; in them students of law and of philology, of theology and of medicine, become acquainted, and many lifelong friendships are here begun. This is no insignificant advantage. Whoever has lived at the university on terms of personal friendship with even a single member of another profession has assumed a different attitude toward that whole class, and come to understand and trust its representatives. *Ars non habet osorem, nisi ignorantem.* The unity of university training helps largely to inspire, in the classes who have enjoyed it, a feeling of unity and solidarity, a feeling that they form an aristocracy of intellect which is destined to counterbalance the aristocracy of birth and of money. Excluding nobody who

has the ability to raise himself into the academic world, it represents, as the clergy did of old, at once the unity and the intellectual leadership of the people.

It is not to be denied that the old *universitas* has been of late exposed more fully to the danger of disintegration, though perhaps less to the loosening of the outward bond which encompasses the faculties than to the impairment of its own inner relations. The chief danger comes from the ever-increasing division of labour, and the resulting specialization of study. The faculty of medicine seems to stand furthest from the university at large — a natural result of the external conditions of its institutions, their independence and isolation, while the study of medicine claims the time of the beginner more decidedly and exclusively than any other. The theologian and the jurist maintain a closer connection, both internal and external, with the university at large. The same centrifugal tendency, however, is at work even in the faculty of philosophy. This faculty is properly called upon to represent the unity of science, and from a purely

theoretical point of view we might unite in it all the general and strictly scientific instruction of the "higher" faculties falling either within the range of historical investigation, as religion and law, or within that of natural science, as the phenomena of life. This forms the basis of the ancient connection between the faculty of philosophy and the "higher" faculties, which, as separate technical or professional schools, presupposed the general foundation of the *facultas artium.* In proportion as the sciences diverge and become specialized within the faculty of philosophy, in proportion as professional schools are developed within it, in just that degree does this faculty lose its power of serving such a general purpose. Since the philological and mathematical lectures have taken on the character of *fachwissenschaftlich* or special instruction for specialists, they are no longer attended by students of theology or medicine; and a similar transformation is going on in the lectures on natural science, and even in those on history. The lectures on philosophy are still the most widely attended from all the faculties.

Of course there is no possibility of retrogression in the division of labour, upon which depend the mighty advances of scientific research. We are called upon, however, to oppose the spirit of "specialism," of over-narrow self-confinement and small-souled satisfaction with oneself; and every one who belongs to a university is likewise called upon to help along the opposition. In particular the tendency toward generalization of study, the philosophical sense which ever stands ready to turn details to good account in the service of the ultimate and highest insight, must always find its proper home in the faculty of philosophy. Herein might be found a peculiarly appropriate field for "public" lectures;[1] to present to a wider circle of hearers, to the disciples of all related branches of learning, whatever problems and results of general interest are included in a special subject. To a certain extent the government might be able to counteract the leaning toward excessive specialization, as well among instructors as among students. A surplus of professional

[1] See above, p. 141

chairs for a certain branch may endanger the real purpose of instruction, so far as the constantly increasing division of labour is thereby promoted. On the other hand, an influence might be exerted on the shaping of courses of study by the rules for examination and the composition of the Examining Boards.

The last point to be touched upon is the

Unity of all German-speaking Universities among Themselves

The German universities, taken altogether, form a world by themselves, sharply marked off and inwardly closely connected. A constant change of students and instructors alike permeates it, as the blood permeates the living body. In foreign universities, especially those of the English type, this phenomenon is unknown. As their students remain within the limits of one "college," so their graduates within the limits of their own university; at least, *ceteris paribus*, each university favours its own graduates. In Germany this is so little the case that one may rather speak of the prevailing tendency to replenish the

force of a university from among outsiders. Every university seeks to draw to itself from the whole body of German scholars the best men whom it can persuade, in order to increase its own attractiveness. To this the territorial subdivision of Germany has contributed. There existed, and there exists to-day, a noble rivalry between German governments, to elevate and maintain their national universities[1] to the best of their ability, without regard to the origin of candidates for positions. There can be no doubt that this system is preferable to a system of inbreeding. Though the changes may now and then be somewhat too rapid, the system has, on the whole, the happy effect that each university continues to share in the common life, and is constantly supplied with fresh blood and fresh ideas.

No excuse seems needed at the close of this account, which has been written chiefly to expound the controlling idea of German universities, for the fact that it has passed lightly

[1] Of the twenty-six component parts of the German Empire nine (counting the Saxon Duchies together as one) maintain universities. Prussia alone has nine. — Tr.

over the defects and the darker side of their organization — defects which are not wanting in any human institution, and such as many men nowadays love to contrast, as if they were the reality, with the ideal conception. The idea is, after all, a part of reality, and, as long as the reality is a living one, the most important part of it, its real quickening spirit.

Let some words of Savigny express in conclusion what it is that the German people possesses in its universities. Their real value, we read in his essay *On the Value and Character of German Universities* quoted above, is not in "the perfect learning of their teachers, or in the ever-growing learning of their students. If we should name this as their distinction, a mirror would often need to be held before us to our shame. It is rather this: in them is given a scheme, wherein every important educational talent finds its development, and every lively susceptibility of the student its satisfaction, through which every advance of science finds easy and rapid entrance, by which is made easy a recognition of the higher calling of exceptional men, and in which even

to the poorer existence of more limited natures a higher sense of life is imparted. Of the possession of such a system we may well be proud; and he who knows our universities will agree with me that in this commendation there is literal truth and no exaggeration."

APPENDIX I

UNIVERSITIES USING THE GERMAN TONGUE, WITH THE DATES OF THEIR FOUNDATION

[Those in Italics no longer exist]

First Period

Prague (Austrian), 1348.
Vienna (Austrian), 1365.
Heidelberg, 1385.
Cologne, 1388–1794.
Erfurt, 1392–1816.
Leipsic, 1409.
Rostock, 1419.

Second Period

Greifswald, 1456.
Freiburg, 1457.
Basle (Swiss), 1460.
Ingolstadt, 1472–1802.
Treves, 1473–1798.
Mentz, 1477–1798.
Tübingen, 1477.
Wittenberg, 1502–1817.
Frankfort-on-the-Oder, 1506 1811.

Third Period

Marburg, 1527.
Königsberg, 1544.
Dillingen, 1549–1803.
Jena, 1558.
Braunsberg, 1568; re-organized, 1818.
Helmstädt, 1576–1809.
Olmütz (Austrian), 1581–1855.
Würzburg, 1582.
Gratz (Austrian), 1585.
Giessen, 1607.
Paderborn, 1615–1818.
Strasburg, 1621; newly founded, 1872.

Rinteln, 1621–1809.
Altdorf, 1622–1807.
Salzburg (Austrian), 1623–1810.
Osnabrück, 1630–1633.
Bamberg, 1648–1803.
Duisburg, 1655–1818.
Kiel, 1665.
Innsbruck (Austrian), 1672.

Fourth Period

Halle, 1694.
Breslau, 1702; re-organized, 1811.
Göttingen, 1737.
Erlangen, 1743.
Münster, 1780.
Berlin, 1809.
Bonn, 1818.
Munich, 1826.
Zurich (Swiss), 1832.
Berne (Swiss), 1834.
Czernowitz (Austrian), 1875.
Freiburg (Swiss), 1889. (Lectures partly in German, partly in French).

APPENDIX II

WORKS DEALING WITH THE GERMAN UNIVERSITIES

Of the great number of such works, which are for the most part merely special pamphlets, or orations, only some of the more important are here given.

[Titles in brackets have been added by the translator.]

1. General Works

Schleiermacher, F., *Gelegentliche Gedanken über Universitäten in deutschem Sinn:* 1808.

Savigny, K. F. von, *Ueber Wesen und Werth der deutschen Universitäten* (in Ranke's *Historisch-politische Zeitschrift:* 1832).

Grimm, J., *Ueber Schule, Universität und Akademie:* 1849 (in Grimm's *Kleinere Schriften*, I. 211 ff.).

Döllinger, J. S., *Die Universitäten sonst und jetzt:* 1867.

Sybel, H. von, *Die deutschen und die auswärtigen Universitäten:* 1868. Reprinted in von Sybel's *Vorträge und Aufsätze*, 3d ed., 1885.

——— *Von deutschen Hochschulen. Allerlei was da ist und was da sein sollte:* 1869.

Meyer, J. B., *Deutsche Universitätsentwickelung. Vorzeit. Gegenwart, Zukunft:* 1874. (In *Deutsche Zeit- und Streitfragen*).

Helmholtz, H., *Ueber akademische Freiheit:* 1877. (Inaugural address, University of Berlin.)

Zeller, E., *Ueber akademisches Lehren und Lernen:* 1879. (Inaugural address, University of Berlin.)

Kähler, M., *Die Universitäten und das öffentliche Leben:* 1891.

[Paulsen, F., *Die deutsche Universität als Unterrichtsanstalt und als Werkstätte der wissenschaftlichen Forschung.* In the *Deutsche Rundschau*, September, 1894, pp. 341–367.]

[Doederlein, Ludwig, *Ueber die Verbindung der allgemeinen mit den Fachstudien auf den Universitäten*, Erlangen, 1844.]

[Dubois-Reymond, E., *Ueber Universitäts-Einrichtungen*, Berlin, 1869.]

Attention is also directed to the following works, portions of which concern this subject:—

Dahlmann, C. F., *Politik*, 2d ed., 1847.

Mohl, R. von, *Polizeiwissenschaft*, Vol. I., 3d ed., 1866.

Marquardsen, H., Article *Universitäten*, in Bluntschli und Brater's *Deutsches Staatswörterbuch*, Vol. X., p. 677 ff.

Among foreign publications may here be noticed:—

Hart, J. M., *German Universities. A Narrative of Personal Experience;* New York, 1874.

Brisac, Edmond Dreyfus, *L'Université de Bonn et l'enseignement supérieur en Allemagne*, Paris, 1879.

[The translator has treated the subject at considerable length in his article *German Universities*, in the *International Encyclopædia*, New ed., New York, 1892, Vol. XIV., p. 795–809.]

2. History

As yet there is no comprehensive historical account. The demands justly made upon such a work are not fulfilled by Meiners' *Geschichte der Entstehung und Entwickelung der hohen Schulen unseres Erdteils;* 4 vols., 1802.

Fragments of the history of the German universities, especially during the Middle Ages, will be found in Vol. IV. of Karl von Raumer's *Geschichte der Pädogogik.* It is only since the necessary material has been made accessible by extensive publication of portions of the archives, and since the way has been prepared for a comprehensive account by treating the various universities separately, that a real history has become possible. Such a work is promised by J. Kaufmann, but only the first volume has thus far appeared, which treats of the non-German universities; its title is: *Geschichte der deutschen Universitäten;* Vol. I., 1888. Many details concerning the history of education, particularly in the faculties of philosophy, are given in Paulsen's *Geschichte des gelehrten Unterrichts auf den deutschen Schulen und Universitäten:* 1885.

Stein, Lorenz von, *Das Bildungswesen:* 2 vols., Stuttgart, 1883–4. (Forms Parts II. and III. of the Second Division of Stein's *Die Verwaltungslehre.*)

In these is given mainly a conspectus of the history of governmental administration in the field of education, in the different countries of Europe.

Among the accounts which deal with more restricted periods or subjects may be mentioned the following:—

Denifle, H., *Die Entstehung der Universitäten des Mittelalters bis* 1400; 1885.

(First volume of a general work on mediæval universities.)

[Compayré, G., *Abelard and the Rise of the Universities,* New York, 1893.]

Kämmel, Otto, *Die Universitäten des Mittelalters,* in Schmid's *Geschichte der Erziehung von Anfang an bis auf unsere Zeit,* Vol. II., Sec. 1, 1891.

Paulsen, F., *Gründung Organisation und Lebensordnungen der deutschen Universitäten im Mittelalter*, in von Sybel's *Historische Zeitschrift*, 1881.

Muther, Th., *Aus dem Universitäts- und Gelehrtenleben im Zeitalter der Reformation:* 1866.

Tholuck, A., *Das akademische Leben des* 17. *Jahrhunderts mit besonderer Beziehung auf die protestantisch-theologischen Fakultäten Deutschlands*, 2 vols., 1853–4.

Stintzing, R. von, *Geschichte der deutschen Rechtswissenschaft:* 1880–4.

[Hofmann, A. W., The Question of a Division of the Philosophical Faculty: Boston (Ginn), 1883. (Address on assuming the rectorship of the University of Berlin, October, 1880.)]

[Baumgart, M., *Grundsätze und Bedingungen der Ertheilung der Doctorwürde bei allen Facultäten*, etc., 4th ed., Berlin, 1892.]

Goldschmidt, L., *Rechtsstudium und Prüfungsordnung:* 1887.

Puschmann, Th., *Geschichte des medizinischen Unterrichts:* 1889.

[Virchow, R., *Lernen und Forschen*, Berlin, 1892.]

Among the numerous accounts of particular universities may be mentioned:—

Berlin: Köpke, R., *Die Gründung der Universität zu Berlin:* 1860.

Erfurt: Kampschulte, F. W., *Die Universität Erfurt in ihrem Verhältnis zum Humanismus und zur Reformation*, 2 vols., 1858–60.

Göttingen: Rössler, G., *Die Gründung der Universität Göttingen*, 1855. Pütter, J. S., *Versuch einer akademischen Gelehrtengeschichte von Göttingen* (continued by Saalfeld and Osterley). 4 vols., 1765–1838.

Greifswald: Kosegarten, *Geschichte der Universität Greifswald:* 1857.

Halle: Hoffbauer, J. C., *Geschichte der Universität zu Halle:* 1805.

Heidelberg: Hautz, J. F., *Geschichte der Universität Heidelberg.* 2 vols., 1862. A. Thorbecke's *Geschichte der Universität Heidelberg* (Sec. I., 1886) promises to be much more valuable.

Königsberg: Arnoldt, D. H., *Historie der Königsbergischen Universität.* 2 vols., 1746.

Munich: Prantl, C., *Geschichte der Universitäten in Ingolstadt, Landshut, München.* 2 vols., 1872.

Tübingen: Klüpfel, K., *Geschichte der Universität Tübingen.* 1849.

Würzburg: Wegele, F. X. von, *Geschichte der Universität Würzburg.* 2 vols., 1882.

Vienna: Aschbach, J., *Geschichte der Wiener Universität im ersten Jahrhundert ihres Bestehens.* 2 vols., 1865–7. R. Kink, *Geschichte der Universität Wien.* 2 vols. 1854.

3. ORGANIZATION, etc.

Koch, J. F. W., *Die preussischen Universitäten.* 3 vols., 1839–40.

Rönne, L. von, *Das Unterrichtswesen des preussischen Staates,* Vol. II. 1855.

Wiese-Kübler, *Verordnungen und Gesetze für die höheren Schulen in Preussen;* 3d ed., 1887. Vol. II.

Ascherson, F., *Deutscher Universitätskalender.* Published since 1872 semi-annually, and containing announcements of lectures, etc.

Kukula, R., and Trübner, K., *Minerva: Jahrbuch der gelehrten Welt.* Fourth annual issue, 1894–5. Gives a conspectus of the organization, *personnel,* etc., of all the universities of the world.

Conrad, J., *Das Universitätsstudium in Deutschland während der letzten* 50 *Jahre:* 1884. English translation by J. Hutchison: *The German Universities for the Last Fifty Years:* Glasgow, 1885.

4. Study and Student-Life

Schelling, F. W. J., *Vorlesungen über die Methode des akademischen Studium:* 1803.

Erdman, J. E., *Vorlesungen über akademisches Leben und Studiums:* 1858.

Harms, Fr., *Die Methode des akademischen Studiums:* 1885.

Keil, R., *Jenaisches Studentenleben:* 1858.

[F. Marion Crawford, in his novel *Greifenstein* (New York, 1890), gives a very faithful picture of some phases of German student-life. — Tr.]

Note. — By an oversight the following title was omitted from Division 1, p. 242: —

[Arnold, Matthew, Higher Schools and Universities in Germany: London, 1882.] — Tr.

APPEN

STATISTICS OF THE UNIVERSITIES
(From Ascherson's *Deutscher Univer-*

University.	Number of Instructors, Winter of 1894-95.					
	Full (Ordinary) Professors.	Extraordinary Professors.	Honorary Professors or Academicians.	*Privadocenten* and Assistants.	Teachers of Modern Languages, etc.	Totals.
Berlin (Prussia)	84	82	11	165	23	365
Bonn "	64	30	1	45	4	144
Braunsberg (Prussia)	7	2	—	1	—	10
Breslau "	60	29	3	42	9	143
Erlangen (Bavaria)	42	10	—	8	6	66
Freiburg (Baden).	48	25	4	24	6	107
Giessen (Hesse)	42	12	1	8	2	65
Göttingen (Prussia)	62	22	2	25	7	118
Greifswald "	43	19	—	22	4	88
Halle "	55	26	3	40	10	134
Heidelberg (Baden)	44	38	10	26	11	129
Jena (Saxon Duchies)	38	29	8	15	3	93
Kiel (Prussia)	41	20	—	26	6	93
Königsberg (Prussia)	48	22	—	28	9	107
Leipsic (Saxony, Kingdom) . .	66	57	12	64	3	202
Marburg (Prussia)	46	14	1	28	7	96
Munich (Bavaria)	70	24	4	74	6	178
Münster (Prussia)	22	13	1	6	7	49
Rostock (Mecklenburg-Schwerin)	30	10	—	2	1	43
Strassburg (Reichslande) . . .	58	26	4	35	4	127
Tübingen (Württemberg) . .	51	16	1	17	6	91
Würzburg (Bavaria)	38	11	2	23	3	77
	1059	537	68	724	137	2585

DIX III

OF THE PRESENT GERMAN EMPIRE
sitätskalender, Winter Term, 1894–95)

Number of Students, Summer of 1894.

Theology.		Law, Polit. Econ., Forestry.	Medicine, Pharmacy.	Philosophy, Philology, Mathematics, Natural Science.	Total No. of matriculated students.	No. allowed to attend lectures, but not matriculated.	Totals.
Prot.	R. Cath.						
389	—	1125	1059	1452	4025	3297	7322
85	231	372	306	640	1634	52	1686
—	24	—	—	19	43	1	44
108	262	315	295	300	1280	40	1320
327	—	239	382	174	1122	42	1164
—	243	456	738	220	1657	94	1751
68	—	196	174	188.	576	26	602
153	—	203	207	228	786	29	815
243	—	101	412	68	824	17	841
540	—	302	247	439	1528	65	1593
86	—	485	269	366	1206	159	1365
73	—	150	206	245	674	41	715
70	—	94	331	115	610	21	631
109	—	198	236	169	712	11	723
396	—	907	695	766	2764	98	2862
125	—	212	232	297	866	35	901
—	143	1459	1485	657	3744	54	3798
—	282	—	—	144	426	25	451
47	—	97	120	172	436	—	436
108	—	239	292	274	913	19	932
309	165	392	235	109	1210	22	1232
—	119	234	763	176	1292	108	1400
3236	1469	7776	8684	7163	28,328	4256	82,584

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